

OPEN ACCESS



Educational Research and Reviews

February 2022

ISSN: 1990-3839

DOI: 10.5897/ERR

www.academicjournals.org



**ACADEMIC
JOURNALS**
expand your knowledge

About ERR

Educational Research and Reviews (ERR) is a peer reviewed open access journal. The journal commenced publication in April 2006. Educational Research and Reviews covers all areas of education such as comparative education, early childhood education, adult education, special education, teachers' training, vocational education, educational technology, educational administration and management, curriculum development, education policies and management.

Indexing

[ERIC - Education Resources Information Center](#), [Google Scholar](#), [CNKI Scholar](#)
[ResearchGate](#)

Open Access Policy

Open Access is a publication model that enables the dissemination of research articles to the global community without any form of restriction. All articles published under open access can be accessed by anyone with internet connection.

Educational Research and Reviews is an Open Access journal. Abstracts and full texts of all articles published in this journal are freely accessible to everyone immediately after publication without any form of restriction.

Article License

All articles published by Educational Research and Reviews are licensed under the [Creative Commons Attribution 4.0 International License](#). This permits anyone to copy, redistribute, remix, transmit and adapt the work provided the original work and source is appropriately cited. Citation should include the article DOI. The article license is displayed on the abstract page the following statement:

This article is published under the terms of the [Creative Commons Attribution License 4.0](#)

Please refer to <https://creativecommons.org/licenses/by/4.0/legalcode> for details about [Creative Commons Attribution License 4.0](#)

Article Copyright

When an article is published by in the Educational Research and Reviews, the author(s) of the article retain the copyright of article. Author(s) may republish the article as part of a book or other materials. When reusing a published article, author(s) should; Cite the original source of the publication when reusing the article. i.e. cite that the article was originally published in the African Journal of Biotechnology. Include the article DOI Accept that the article remains published by the African Journal of Biotechnology (except in occasion of a retraction of the article). The article is licensed under the Creative Commons Attribution 4.0 International License.

A copyright statement is stated in the abstract page of each article. The following statement is an example of a copyright statement on an abstract page.

Copyright ©2016 Author(s) retains the copyright of this article.

Self-Archiving Policy

The journal permits and encourage authors to archive any version of their article they find most suitable, including the published version on their institutional repository and any other suitable website.

Digital Archiving Policy

Educational Research and Reviews is committed to the long-term preservation of its content. All articles published by the journal are preserved by Portico. In addition, the journal encourages authors to archive the published version of their articles on their institutional repositories and as well as other appropriate websites.

Metadata Harvesting

Educational Research and Reviews encourages metadata harvesting of all its content. The journal fully supports the Open Archives Initiative.

Memberships and Standards



Academic Journals strongly supports the Open Access initiative. Abstracts and full texts of all articles published by Academic Journals are freely accessible to everyone immediately after publication.



All articles published by Academic Journals are licensed under the [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](#). This permits anyone to copy, redistribute, remix, transmit and adapt the work provided the original work and source is appropriately cited.



[Crossref](#) is an association of scholarly publishers that developed Digital Object Identification (DOI) system for the unique identification published materials. Academic Journals is a member of Crossref and uses the DOI system. All articles published by Academic Journals are issued DOI.

[Similarity Check](#) powered by iThenticate is an initiative started by CrossRef to help its members actively engage in efforts to prevent scholarly and professional plagiarism. Academic Journals is a member of Similarity Check.

[CrossRef Cited-by](#) Linking (formerly Forward Linking) is a service that allows you to discover how your publications are being cited and to incorporate that information into your online publication platform. Academic Journals is a member of [CrossRef Cited-by](#).



Academic Journals is a member of the [International Digital Publishing Forum \(IDPF\)](#). The IDPF is the global trade and standards organization dedicated to the development and promotion of electronic publishing and content consumption.

Contact

Editorial Office: err@academicjournals.org

Help Desk: helpdesk@academicjournals.org

Website: <http://www.academicjournals.org/journal/ERR>

Submit manuscript online <http://ms.academicjournals.org>

Academic Journals
73023 Victoria Island, Lagos, Nigeria
ICEA Building, 17th Floor,
Kenyatta Avenue, Nairobi, Kenya.

Editors

Dr. Peter W. Wong

Southern Cross University
Australia.

Dr. Jean Madsen

Department of Education Administration and
Human Resource and Development,
Texas A&M University,
United States

Associate Editors

Dr. Melissa Vick

School Of Education
James Cook University
Townsville,
Australia.

Dr. Laima Kyburiene

Kedainiai Jonusas Radvila Study Center
Kauno kolegija/University of Applied
Sciences
Lithuania.

Dr. Mustafa Çakir

Secondary Science and Mathematics
Education,
Marmara University
Turkey.

Dr. Alexandru-Constantin Strunga

Department of Communication, Journalism
and Education Sciences
University of Craiova,
Romania.

Assoc. Prof. Manjula Vithanapathirana

Faculty of Education
University of Colombo
Colombo,
Sri Lanka.

Dr. Tolga Gök

Torbali Vocational School of Higher Education
Dokuz Eylul University
Izmir,
Turkey.

Prof. Ogunsakin R. Ebenezer

Department of Statistics
Ekiti State University
Ado Ekiti,
Nigeria.

Dr. A. Kadir Maskan

Dicle University
Ziya Gokalp Education Faculty
Department of Physics Education
Diyarbakir,
Turkey.

Dr. Kamo Chilingaryan

Foreign Languages,
Law Institute at Peoples' Friendship University,
Russian Federation.

Dr. Maniam Kaliannan

Faculty of Administrative Science & Policy
Studies
Universiti Teknologi MARA (UiTM)
Selangor,
Malaysia

Dr. Tavis D. Jules

Cultural and Educational Policy Studies
School of Education
Loyola University Chicago
Chicago,
USA.

Editorial Board

Prof. García Mayo, María del Pilar

Departamento de Filología Inglesa y Alemana y
de Traducción e Interpretación
Universidad del País Vasco (UPV/EHU)
Paseo de la Universidad 5
Vitoria,
Spain.

Prof. Georgios D. Sideridis

University of Crete
Department of Psychology
Rethimno,
Greece.

Dr. Işıl Aktağ

Physical Education Teaching,
Bolu Abant İzzet Baysal University,
Turkey.

Prof. Mutendwahothe Walter Lumadi

Curriculum & Instructional Studies
College of Education
UNISA,
South Africa.

Prof. Moshe Barak

Graduate Program for Science and Technology
Education
Ben-Gurion University of the Negev,
Beer Sheva,
Israel.

Dr. Hiam Zein

Psychology and Education
Lebanese American University
Chouran-Beirut,
Lebanon.

Prof. Bingjun Yang

School of Foreign Languages
Southwest University
Chongqing,
China.

Dr. Ernest W. Brewer

The University of Tennessee
Educational Administration and Supervision
Tennessee,
USA.

Prof. Gail Derrick

Regent University
School of Education
Virginia Beach,
USA.

Dr. Evridiki Zachopoulou

Department of Early Childhood Care and
Education
Thessaloniki,
Greece.

Dr. Syed Iftikhar Hussain Shah

Technical Education and Vocation
TEVTA Secretariat
Lahore,
Pakistan.

Dr. Ravi Kant

College of Teacher Education
Maulana Azad National Urdu University
Darbhanga,
India.

Editorial Board

Dr. Dibakar Sarangi

Directorate of Teacher Education and State
Council for Educational Research and Training
(DTE & SCERT)
Odisha,
India.

Dr. Mehmet Akif Sözer

Department of Primary Education
Gazi Faculty of Education
Gazi University
Turkey.

Dr. Georgios Bikos

School of Humanities
Hellenic Open University
Greece.

Dr. Cemil Inan

Department of Primary Education
Ziya Gökalp Education Faculty
Dicle University,
Turkey.

Dr. Mehmet Demir

Department of Administrative and Policy Studies
School of Education
University of Pittsburgh,
USA.

Associate Prof. Abdulsalam Al-Hadabi

Curricula and Ped
agogy, Amran University,
Yemen

Table of Content

Parent attitudes and submissive behaviors in adolescents as social anxiety predictors Abdullah Mert	52
The level of critical thinking of a Jordanian sample of blind students and its relationship with some variables Feryal Abdel-Hadi Al-Shenikat	67
Cementing devices and ambiguity in the Holy Qur'an: Al-Qasas Surah as a model Jibrel Harb Al-Saudi and Aiman Eid Al-Rawajfeh	73
A source for technical and musical development in piano education: Analysis of Manookian "Etudes for the Intermediate Pianist" Method Özlem Ömür	85

Full Length Research Paper

Parent attitudes and submissive behaviors in adolescents as social anxiety predictors

Abdullah Mert

Department of Psychological Counseling, Faculty of Education, Uşak University, 64300 İzmir Yolu Uşak, Turkey.

Received 26 August, 2021; Accepted 11 October, 2021

The aim of this study was to present the power of high school students' parents' attitudes and submissive behaviors' in predicting social anxiety. The study group consisted of 298 students (159 female, 139 male) from two different high schools who were studying in the 2018-2019 academic year and voluntarily participated in the study. The study was carried out in accordance with the relational screening model. In this study, the Social Anxiety Scale for Adolescents (SASA) was used to determine the social anxiety levels of the participants, while the Parenting Attitude Scale (PAS) and the Submissive Behaviors Scale (SBS) was used for determining the parents' attitudes. Multiple regression analysis was applied to determine the power of secondary school students in predicting social anxiety levels. There was a medium level positive correlation found between high school students' total social anxiety scores and submissive behaviors.

Key words: Social anxiety predictors, parent attitudes, submissive behaviors, adolescents.

INTRODUCTION

Adolescence is the period after childhood and before adulthood during which an individual undergoes growth and development. It is considered to begin at the age of 10.5-11 for girls and 12.5-13 for boys, and end between the ages of 16 and 18 in general (Parman, 2017). In this period, very rapid changes occur (WHO, 2016) and individuals in this period may need some social groups (Van Zalk et al., 2011). Adolescents attempt to cope with their emotions of inadequacy during this period, but they are susceptible to negative thoughts (Townsend, 2012), and these environments are avoided or endured with excessive anxiety (Kring et al., 2017). This period is seen as a point of conflict and sharing between adulthood and childhood (Parman, 2017). Anxiety is defined as an expectation of a possible future threat and an emotional

response to a distinguishable, real or felt immediate threat (APA, 2013). Adolescents may face the problem of social anxiety and this is a problem that can be encountered more frequently among themselves (Tassin et al., 2014). In addition, it is described by DSM-5 (APA, 2013) as a clear and constant feeling of fear of meeting new people and being observed by others. Adolescents form their beliefs about social life by watching the actions of their parents. If the parent suggests that social interaction will have a negative outcome, the adolescent may suffer from social anxiety (Bögels and Perotti, 2010). Authoritarian parenting, in particular, is connected with social anxiety (Rana et al., 2013).

For both individuals and their parents, the transition from childhood to adolescence involves an exciting and

E-mail: abdullahmert@gmail.com.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

anxious change (Plotnik, 2009). It has been reported that the age at which social anxiety begins to occur is around 13-14 years old and that social anxiety disorder reaches its peak in mid-adolescence (Johnson et al., 2006). High levels of social anxiety affect the social relationships of individuals (Çankaya, 2007). Adolescents who experience social anxiety at a high-level refrain from communicating with their peers due to fear of rejection (Teachman and Allen, 2007) and are known as people who do not speak or operate in social environments and keep a low profile especially in relations with the opposite gender. There are studies showing that female adolescents have higher social anxiety levels than male adolescents (Jose et al., 2012). The fear and avoidance behaviors of adolescents with high social anxiety levels decrease their friendship quality and negatively affect their social interactions (Biggs et al., 2012; Blote et al., 2007). As a result of this apathy, the adolescent may exhibit violent behavior and chilly attitudes toward their parents, siblings and friends (Bee and Boyd, 2009).

Parenting is the process of encouraging and supporting a child's physical, emotional, social and intellectual growth from infancy to adulthood (Yousaf, 2015). Some studies have showed that there is a significant relationship between parental attitudes and adolescents' social anxiety levels (Chen, 1994; Flanagan et al., 2008). Adolescents who exhibit excessive authoritarian and protective attitudes have been found to have higher levels of social anxiety (Bögels et al., 2001; Hudson and Rapee, 2000; Sertelin-Mercan, 2007). The child's insecurity is exacerbated by the parent's strict and demanding attitude, which promotes lack of trust in social environments (Rana et al., 2013); while adolescents who perceive their parents as democratic have lower social anxiety (Hardin, 2002). Parents play an active role in adolescents' socialization (Flanagan et al., 2008) and development stages (Özyürek and Şahin, 2005). Parents' attitude is vital for adolescents to know themselves, form their personality, make choices and adapt to society (Herken and Özkan, 1998). Relationships with parents, the quality of the parents' attitude, and creating boundaries, respecting everyone's personal space, and treating opposites with a knowledge of how the individual interprets this all play a role in psychological development (Erdoğan, 2014; Jeammet and Mingasson, 2016).

Parents' unloving approach causes negative situations such as oppressive attitudes, the presence of threats, and the expectation of the child's obedience (Gilbert, 2000; Gilbert et al., 2002). In such families, the parents believe that obeying them is necessary, even if it is unjust, and this submissive conduct begins in the family as a result of the family environment (Yavuzer, 2016). People who are submissive live by the regulations and rules established by others (Adler, 2016). Individuals who engage in submissive behavior are unable to freely express their differing viewpoints, have difficulty saying "no," believe themselves to be worthless and insignificant

(Allan and Gilbert, 2002), and are unable to defend themselves against external criticism (Catarino et al., 2014). This form of action is said to be motivated by a sense of family loyalty (Gilbert et al., 2003). Subservient behavior is mostly caused by an individual's excessive effort to adapt to the social environment (Brabender and Fallon, 2009).

Submissive individuals are very timid people who refrain from upsetting others for fear or sensitivity (Gilbert et al., 2003). Individuals who demonstrate submissive behaviors tend to see themselves as worthless and insignificant (Çelik and Odacı, 2011) and avoid change and taking responsibility (Allan and Gilbert, 2002). In a study conducted by Lopresto and Deluty (2001), a relationship was determined between submissive behaviors and gender. It was reported that females exhibited more submissive behaviors compared to males. When the relationship between parental attitudes and submissive behaviors was examined, it was determined that adolescents exposed to authoritarian and controlling attitudes tended to demonstrate submissive behaviors (Gander and Gardiner, 1998). Submissive behaviors negatively affect the personal development of adolescents (Yıldırım and Ergene, 2003). Studies have indicated that adolescents who grow up among the eastern culture experience more submissive behavior, social anxiety, and depressive symptoms compared to individuals who grow up among the western culture (Hoffmann et al., 2004).

In this study, the effects of parents' attitudes, submissive behaviors and social anxiety levels on adolescents' life periods were examined. Accordingly, answers to the following questions were sought:

1. Is there a significant relationship between the attitude of high school students' parents, submissive behavior and social anxiety levels?
2. Do the parental attitude and submissive behaviors of high school students' parents predict social anxiety at a significant level?

METHOD

Study group

This study was carried out in accordance with the relational screening model. The study group consisted of 298 students (N = 159 female, N = 139 male) studying in the 9th, 10th, 11th or 12th grades in two different high schools in the center of Uşak in the 2018-2019 academic year. All students accepted to participate in the study voluntarily.

Data collecting tools

Social anxiety scale for adolescents (SASA)

This scale was originally developed by La Greca and Lopez (1998) and adapted into Turkish by Aydın and Tekinsav Sütçü (2007). It is

Table 1. Correlation values that show the relationships between the variables (n=298).

Variable	Accepting interest	Control inspection	Psychological autonomy	Submissive behaviors	Social anxiety
Accepting-interest	1	0.035	0.251**	-0.129*	-0.032
Control-inspection		1	-0.182**	0.047	0.105*
Psychological autonomy			1	-0.195**	-0.202**
Submissive behaviors				1	0.443**
Social anxiety					1

applied to determine the social anxiety levels of students. The scale consists of 22 articles in total and is a 5-point Likert type scale. It includes three sub-dimensions, namely "fear of negative evaluation", "social avoidance and uneasiness in general situations" and "social avoidance and uneasiness in new situations". The Cronbach alpha reliability coefficient of the original scale was found to be .88 for the whole scale. The applicability of the scale to the secondary education sample was examined by Göktürk (2011) and the reliability coefficient of the entire scale was calculated as .91. In addition, it was determined that the scale also worked in the high school sample. In the present study, the Cronbach Alpha internal consistency coefficient was determined as 0.82.

Parent Attitude Scale (PAS)

This scale was developed by Lamborn et al. (1991) to determine the parents' attitudes as a data collection tool and adapted into Turkish by Yılmaz (2000). It consists of 26 items, the first 18 of which are of a 4-point Likert type scale. Moreover, articles 19 and 20 contain 6 sub-articles consisting of 'Yes' and 'No' answers, while articles 21 and 26 consist of a 3-point Likert type scale. The scale includes three sub-dimensions, namely "acceptance-interest", "psychological autonomy" and "control-supervision". The internal consistency coefficients of the sub-dimensions of the original scale ranged between 0.72 and 0.82 (Lamborn et al., 1991). The internal consistency coefficients of the scale adapted for primary school, high school and university students varied between 0.60 and 0.75 (Yılmaz, 2000). In the present study, the internal consistency coefficients for the sub-dimensions ranged between 0.66 and 0.68.

Submissive behaviors

This scale, which was prepared to determine the social submissive behavior levels of individuals, was developed by Gilbert and Allan (1994) and adapted into Turkish by Şahin and Şahin (1992). It consists of 16 items and is a 5-point Likert type scale. The scale was determined as one factor. As a result of the reliability analysis of the scale, the Cronbach Alpha internal consistency coefficient was found as 0.89. The internal consistency coefficient of the scale adapted for high school students was determined as 0.74. In the present study, the Cronbach Alpha internal consistency coefficient was calculated as 0.85.

Analysis of the data

A Pearson correlation analysis was conducted to determine the relationship between the variables in the study. In addition, multiple regression analysis was used to determine the power of the independent variables, namely acceptance-interest, psychological

autonomy, control-supervision and submissive behaviors, to predict the level of social anxiety of the high school students.

FINDINGS

A correlation analysis was carried out in order to observe the relationships between the secondary school students' social anxiety total scores and predictive variables, namely acceptance-interest, psychological autonomy, control-supervision, and submissive behaviors, and the results are presented in Table 1. As can be seen from the results in Table 1, a weak and positive significant relationship was determined between the social anxiety total scores and the parental attitude sub-dimensions of control-supervision [$r = 0.105$, $p < 0.05$] psychological autonomy [$r = -0.202$] there was a significant relationship between the accepting-interest sub-dimension [$p < 0.01$]. However, no significant relationship was found between the acceptance-interest sub-dimension [$r = -0.032$, $p > 0.05$]. According to these findings, it can be said that as the level of students' democratic perception increased their level of social anxiety decreased, and the more they perceived their parents as controlling the more their social anxiety increased. However, a moderately positive correlation was determined between the social anxiety total scores and submissive behaviors [$r = 0.443$, $p < 0.01$]. This finding indicates that the students' submissive behavior levels and social anxiety are in a positive relationship. Accordingly, it can be said that as the submissive behaviors of secondary school students increase, their social anxiety levels also increase.

Prior to the analysis conducted to determine the predictive roles of high school students' social anxiety levels, submissive behaviors and parental attitudes, descriptive statistics regarding the variables were examined. Considering the kurtosis and skewness coefficients of the variables, it can be stated that the assumption of normality was provided. The results of the multiple regression analysis conducted to determine the power of the independent variables, namely acceptance-interest, psychological autonomy, control-supervision and submissive behaviors, in predicting the social anxiety levels of high school students are presented in Table 2. Dependent variable is social anxiety, while independent variables are: parent attitudes (accepting-interest,

Table 2. Multiple regression analysis results

Variable	B	Std. Error	Beta	T	p	Tol.	VIF	R	R ²
Accepting-Interest	-0.122	0.177	-0.040	-0.687	0.493	0.907	1.102		
Control-Inception	0.191	0.293	0.037	0.650	0.516	0.954	1.048	0.234	0.055
Psychological Autonomy	-0.622	0.173	-0.211	-3.599	0.000***	0.887	1.128		
Submissive Behaviors	0.741	0.071	0.507	10.376	0.000***	1.000	1.000	0.507	0.257

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

psychological autonomy, control-inspection), submissive behaviors. In the present study, when it was examined whether the assumptions regarding the regression analysis were met, the tolerance values for the variables were found to be between .88 and 1.00. However, the variance increases factor (VIF) values ranged from 1.00 to 1.12. Considering that the tolerance values were greater than .20 and the VIF values were less than 10, it can be said that the conditions were met (Büyüköztürk, 2009; Field, 2009). As can be seen in Table 2, when the multiple regression analysis regarding parental attitude and submissive behaviors predicting social anxiety was considered, it was observed that the sub-dimensions of acceptance-interest, control-supervision and psychological autonomy that constitute parental attitude predicted social anxiety in a statistically significant manner ($F = 5,960$, $R = 0.234$, $R^2 = 0.055$, $p < 0.01$). It was observed that all dimensions of parents' attitudes explained approximately 6% of the total variance related to social anxiety. Accordingly, it was seen that it contributed positively to psychological autonomy.

In addition, the submissive behavior total scores were found to statistically predict social anxiety ($F = 107.669$, $R = 0.507$, $R^2 = 0.257$, $p < 0.001$). Submissive behaviors were found to explain approximately 26% of the total variance related to social anxiety. This finding shows that as the submissive behaviors of high school students increased, their social anxiety levels increased and that submissive behaviors in adolescents are an important predictor of social anxiety.

DISCUSSION

As a result of the research, it was seen that there is a negative and significant relationship between the levels of democratic perception of their parents and social anxiety in secondary school students, and a positive relationship with the levels of supervisory perception. Furthermore, the findings of the study demonstrated that the sub-dimensions of acceptance-interest, control-supervision, and psychological autonomy, which make up parental attitude, are in a predictive position in the level of social anxiety. According to Bynion et al. (2017), social anxiety is the most common anxiety disorder among adolescents, and it has a significant relationship with some parenting

behaviors. In today's societies, anxiety is regarded as a manageable emotion, and it is viewed as a significant impediment to human enjoyment that must be overcome as quickly as feasible (Salecl, 2018). Adolescents go through a troubled process that is anxious, seeking, self-discovery and trying to gain an identity during adolescence. They may have conflicts with their families and social groups as they struggle to adjust to the changes in their bodies (Eni, 2017). It is also claimed that people who suffer from social anxiety had a lower quality of life (Sung et al., 2012). In a study conducted by Stein et al. (2017), social anxiety disorder has also been linked to specific socio-demographic characteristics (younger age, female gender, single marital status, low education, and low income). Bruce et al. (2012) emphasize that childhood traumatic events are an effective predictor of social anxiety disorders.

There was a negative correlation between the psychological autonomy sub-dimension and social anxiety. Lieb et al. (2000) reported that overprotective and rejecting parenting is significantly associated with social anxiety. Studies have shown that adolescents with positive parental support have lower social anxiety levels (Hardin, 2002), increased socialization characteristics (Bögels et al., 2001), and their personality development is positively affected (Erdoğan, 2014; Yavuzer, 2003). Xu et al. (2012) found that social anxiety is more prevalent in women than in males throughout their lives. Another study found that the mother's anxious upbringing style and psychological control increased the adolescent's anxiety, whereas the father's anxious upbringing style had no effect (Bynion et al., 2017). It is revealed that parenting behaviors are positively related to child anxiety (Brown and Whiteside, 2008). University students' social anxiety is linked to their parents' lack of emotional warmth and overprotectiveness (Spokas and Heimberg, 2009). The findings of this study are supported by the literature in light of the given facts.

It has been shown that there is a positive relationship between the submissive behavior levels of secondary school students and social anxiety. Furthermore, as a result of the research, it was seen that submissive behavior total scores significantly predicted the level of social anxiety. Their autonomy decreases and their need for approval increases, they become dependent on the environment and have difficulty expressing their feelings

and thoughts (Gilbert and Allan, 1994) and it has been determined that they act shy and accepting (Gilbert et al., 2003). According to Allan and Gilbert (2002), submissive behaviors are mostly related with depression symptoms and mental problems, and these behaviors prevent the individual's assertiveness. On the other hand, McCreary and Rhodes (2001) concluded that males exhibit more dominant behaviors than females, while females display more passive behaviors. It has been determined that girls are more submissive because they are passive. The findings are consistent with the information gathered throughout the literature review.

This study has shown that parents' attitudes are important predictors of submissive behaviors. It has been reported that parental attitudes have an important effect on the development of children and adolescents (Sezer, 2010). Parents who respect the autonomy of adolescents, display consistent behavior and communicate well (Cheung et al., 2004; Gilbert et al., 2003; Troop et al., 2003; Gilbert and Allan, 1994; Yavuzer, 2016) lead to the adolescents demonstrating less of submissive behaviors. Adolescents, on the other hand, may have needs such as adhering to a social group and maintaining their social position, and in order to achieve these goals, they may exhibit submissive behaviors as well as negative behaviors such as approving and accepting everything (Hofmann et al., 2004). Perren and Alsaker (2006) found that students involved in victim incidents were more subservient, lacked leadership abilities, were more introverted, lonely, less socialized, and often lacked a playmate.

Another variable that is an important predictor of adolescent's social anxiety is submissive behavior. Submissive behaviors are the denial of individual desires, lack of assertiveness, and following a strategy of perceiving lesser social position and functions to placate others to prevent threats from others (Catarino et al. 2014). Adolescents exhibiting submissive behaviors were found to have high social anxiety. Some studies have associated social anxiety with submissive behavior (Hudson and Rapee, 2000), and determined that adolescents growing up according to eastern culture show more social anxiety and submissive behaviors (Gilbert et al., 1995). Moreover, it has been stated that social anxiety and submissive behaviors are directly related to family attitude (Gander and Gardiner, 1998; Cüceloğlu, 2006). Individuals' fears of not receiving approval and the need to please others, as well as feelings and behaviors such as inferiority, being unsuccessful as an individual, being seen as incomplete, and losing their dignity, are explained by Gilbert et al. (2002), who link inadequacy thoughts to submissiveness. Another study discovered that women exhibit more submissive behaviors than men (Lopresto and Deluty, 2001). As a result, it was discovered that as anxiety levels rise, so do submissive behaviors (O'Connor et al., 2002).

CONCLUSION AND RECOMMENDATIONS

As a result, it is seen that as the submissive behaviors of secondary school students increase, their social anxiety levels increase and submissive behaviors in adolescents are an important predictor of social anxiety. Social anxiety levels of secondary school students increase as their submissive behaviors increase. The current study has some limitations. First of all, it was attempted to reveal the predictive power of secondary school students' parental attitudes and submissive behaviors on social anxiety. The study's data is limited to people who attended secondary school and volunteered to participate in the study. The study's limitations are critical in evaluating and generalizing the findings. As a result, qualitative investigations can be used to study the role of parental attitudes and submissive behaviors on the level of social anxiety in future studies. When the developmental characteristics of adolescents are evaluated, it is believed that concepts such as social media, loneliness and perfectionism may be related to social anxiety. Furthermore, examining the relationships between variables with different study groups is important for the generalizability of the results.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

REFERENCES

- Adler A (2016). *The art of knowing people (Menschenkenntnis)*. Istanbul: Bookstore.
- Allan S, Gilbert P (2002). Anger and anger expression in relation to perceptions of social rank entrapment and depressive symptoms. *Personality and Individual Differences* 32(3):551-565.
- American Psychiatric Association (APA) (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Publication. Washington, DC.
- Aydın A, Tekinsav-Sutcu S (2007). Validity and reliability of social anxiety scale for adolescents (SAS-A). *Turk Journal Child Adolescent Mental Health* 14(2):79-89.
- Bee H, Boyd D (2009). *Child developmental psychology (11th edition)*. Istanbul: Kaknüs Bookstore.
- Biggs BK, Vernberg EM, Wu YP (2012). Social anxiety and adolescents' friendships: The role of social withdrawal. *The Journal of Early Adolescent* 32(6):802-823.
- Bögels SM, Perotti EC (2010). Does father know best? A formal model of the paternal influence on childhood social anxiety. *Journal of Child and Family Studies* 20(2):171-181.
- Bögels SM, van Oosten A, Muris P, Smulders D (2001). Familial correlates of social anxiety in children and adolescents. *Behavior Research and Therapy* 39(3):273-287. [https://doi.org/10.1016/s0005-7967\(00\)00005-X](https://doi.org/10.1016/s0005-7967(00)00005-X)
- Brabender V, Fallon A (2009). *A group development in practice: guidance for clinicians and researchers on stages and dynamics of change*. Washington, DC: American Psychological Association.
- Brown AM, Whiteside SP (2008). Relations among perceived parental rearing behaviors, attachment style, and worry in anxious children. *Journal of Anxiety Disorders* 22(2):263-272. doi: <https://doi.org/10.1016/j.janxdis.2007.02.002>
- Bruce LC, Heimberg RG, Blanco C, Schneier F, Liebowitz MR (2012).

- Childhood maltreatment and social anxiety disorder: Implications for symptom severity and response to pharmacotherapy. *Depression and Anxiety* 1(29):131-138.
- Büyüköztürk Ş (2009). *Manual of data analysis for social sciences* (10. Ed.). Ankara: Pegem Academy Publishing.
- Bynion TM, Blumenthal H, Bilsky SA, Cloutier RM, Leen-Feldner EW (2017). Dimensions of parenting among mothers and fathers in relation to social anxiety among female adolescents. *Journal of Adolescence* 60:11-15. <https://doi.org/10.1016/j.adolescence.2017.07.004>
- Çankaya B (2007). Examination of self-respect perception of 9th and 10th grade students in terms of some variances (Unpublished master's thesis). Ankara, Turkey, Gazi University.
- Catarino F, Gilbert P, Mcewan K, Baião R (2014). Compassion motivations: distinguishing submissive compassion from genuine compassion and its association with shame, submissive behavior, depression, anxiety and stress. *Journal of Social and Clinical Psychology* 3(5):399-412.
- Çelik ÇB, Odacı H (2011). Submissive behaviors as a predictor of preservice teachers' self-perception. *e-Journal of New World Sciences Academy* 6(2):1388-1398.
- Chen ZY (1994). The positive and negative consequences of adolescent emotional autonomy: the relation of aspects of autonomy to academic achievement and socially disapproved behaviors. (Unpublished doctoral dissertation). California, USA, Stanford University.
- Cheung MSP, Gilbert P, Irons C (2004). An exploration of shame, social rank and rumination in relation to depression. *Personality and Individual Differences* 36(5):1143-1153. [http://doi.org/10.1016/S0191-8869\(03\)00206-X](http://doi.org/10.1016/S0191-8869(03)00206-X)
- Cüceloğlu D (2006). *Human and behavior, basic concepts of psychology*. (12th Edition), İstanbul: Remzi Bookstore pp. 532-537.
- Eni Ş (2017). The effect of high school students' social media using climate on the life ranks. (Unpublished master's thesis), Institute of Social Sciences, İstanbul, Turkey, Haliç University.
- Erdoğan HNÖ (2014). Religious and social development of adolescence. *Abant İzzet Baysal University Journal Graduate School of Social Sciences* 14(1):153-16.
- Field A (2009). *Discovering statistics using SPSS* (3th ed.). London: Sage Publications.
- Flanagan KS, Erath SA, Biermann KL (2008). Unique associations between peer relations and social anxiety in early adolescence. *Journal of Clinical Child and Adolescent Psychology* 37(4):759-769.
- Gander MJ, Gardiner HW (1998). *Child and adolescent development*. (Trans. Bekir Onur). Ankara: Image Bookstore Publications.
- Gilbert P (2000). The relationship of shame, social anxiety, and depression: The role of the evaluation of social rank. *Clinical Psychology and Psychotherapy* 7(3):174-189.
- Gilbert P, Allan S (1994). Assertiveness, submissive behavior and social comparison. *British Journal of Clinical Psychology* 33(3):295-306. <https://doi.org/10.1111/j.2044-8260.1994.tb01125.x>
- Gilbert P, Allan S, Brough S, Melley S, Miles JNV (2002). Relationship of Anhedonia and Anxiety to Social Rank, Defeat and Entrapment. *Journal of Affective Disorders* 71:141-151.
- Gilbert P, Allen S, Trent DR (1995). Involuntary subordination or dependency as key dimensions of depressive vulnerability. *Journal of Clinical Psychology* 51:740-752. [https://doi.org/10.1002/1097-4679\(199511\)51:6<740::AID-JCLP2270510604>3.0.CO;2-#](https://doi.org/10.1002/1097-4679(199511)51:6<740::AID-JCLP2270510604>3.0.CO;2-#)
- Gilbert P, Cheung MS-P, Grandfield T, Campey F, Irons C (2003). Assessment recall of threat and submissiveness in childhood: Development of a new scale and its relationship with depression, social comparison and shame. *Clinical Psychology and Psychotherapy* 10(2):108-115.
- Göktürk GY (2011). A study of social anxiety of adolescents according to self-esteem and some personal and demographic characteristics. (Unpublished master's thesis). Bolu, Turkey, Abant İzzet Baysal University.
- Hardin E (2002). Depression and social anxiety among Asian and European Americans: The roles of self-discrepancy, optimism, and pessimism. (Unpublished master's thesis). Columbus, USA, Ohio State University.
- Herken H, Özkan İ (1998). Smoking habit and parental attitude. *General Medical Journal* 8(2):85-89.
- Hoffmann SG, Heinrichs N, Moscovitch DA (2004). The nature and expression of social phobia: toward a new classification. *Clinical Psychology Review* 24:769-797. <https://doi.org/10.1016/j.cpr.2004.07.004>.
- Hudson JL, Rapee RM (2000). The origins of social phobia. *Behavior Modification* 24(1):102-130.
- Jeammet P, Mingasson L (2016). Communication. In p. Jeammet, adolescence, triangulation points for parents and experts. İstanbul: Bağlam Publishing pp. 161-174.
- Johnson HS, Inderbitzen-Nolan HM, Anderson ER (2006). The social phobia: Validity and reliability in an adolescent community sample. *Psychological Assessment* 18(3):269-277.
- Jose PE, Ryan N, Pryor J (2012). Does social connectedness promote a greater sense of well-being in adolescence over time? *Journal of Research on Adolescence*, 22(2):235-251. <https://doi.org/10.1111/j.1532-7795.2012.00783.x>
- Kring AM, Johnson SL, Davison G, Neale J (2017). *Abnormal psychology* (12th ed.). Ankara: Nobel Publishing.
- La Greca LJ, Lopez N (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology* 26(6):83-94.
- Lamborn SD, Mounts NS, Steinberg L, Dornbusch SM (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development* 62(5):1049-1065.
- Lieb R, Wittchen HU, Michael Höfler MF, Stein MB, Merikangas KR (2000). Parental psychopathology, parenting styles and the risk of social phobia in offspring. *Archives of General Psychiatry* 57(9):859-866.
- Lopresto CT, Deluty RH (2001). Consistency of aggressive, assertive, and submissive. *Behavior in Male Adolescent. The Journal of Social Psychology* 128(5):619-632.
- McCreary DR, Rhodes ND (2001). On the gender-typed nature of dominant and submissive acts. *Sex Roles* 44(5):339-350.
- O'Connor LE, Berry JW, Weis J, Gilbert P (2002). Guilt, fear, submission, and empathy in depression. *Journal of Affective Disorders* 71(1-3):19-27.
- Özyürek A, Şahin TF (2005). Examining the attitudes of parents who have children at the age of 5-6. *Gazi University Journal of Gazi Education Faculty* 25(2):19-34.
- Parman T (2017). *Adolescence and beyond*. İstanbul: Bağlam Publishing.
- Perren S, Alsaker FD (2006). Social behavior and peer relationships of victims, bully-victims, and bullies in kindergarten. *Journal of child psychology and psychiatry* 47(1):45-57.
- Plotnik R (2009). *Introduction to psychology*. İstanbul: Kaknüs Publishing.
- Rana SA, Akhtar S, Tahir MA (2013). Parenting styles and social anxiety among adolescents. *New Horizons* 7(2):21-34.
- Şahin NH, Şahin N (1992). Adolescent guilt, shame and depression in relation to sociotropy, and autonomy. *The World Congress of Cognitive Therapy Toronto* pp. 17-21.
- Salecl R (2018). *About anxiety*. İstanbul: Metis Publishing.
- Sertelin-Mercan Ç (2007). The effect of social skills education program integrated with cognitive behavioral approach on social anxiety level of adolescents. (Unpublished master's thesis). Ankara, Turkey, İstanbul University.
- Sezer Ö (2010). The relationship between adolescents' self-perception, parental attitudes, and some other variables. *Van Yuzuncu Yıl University Journal of Education* 7(1):1-19.
- Spokas M, Heimberg RG (2009). Overprotective parenting, social anxiety, and external locus of control: cross-sectional and longitudinal relationships. *Cognitive Therapy and Research* 33(6):543-551.
- Stein DJ, Lim CCW, Roest AM, de Jonge P, Aguilar-Gaxiola S, Al-Hamzawi A (2017). WHO World Mental Health Survey Collaborators. The cross-national epidemiology of social anxiety disorder: Data from the World Mental Health Survey Initiative. *BMC Medicine* 15(1):143.
- Sung SC, Porter E, Robinaugh DJ, Marks EH, Marques LM, Otto MW, Pollack MH, Simon N M (2012). Mood regulation and quality of life in social anxiety disorder: an examination of generalized expectancies for negative mood regulation. *Journal of Anxiety Disorders*

- 26(3):435-441.
- Tassin C, Reynaert C, Jacques D, Zdanowicz N (2014). Anxiety disorders in adolescence. *Psychiatria Danubina* 26(1):27-30.
- Teachman BA, Allen JP (2007). Development of social anxiety: social interaction predictors of implicitly and explicitly fear of negative evaluation. *Journal of Abnormal Child Psychology* 35(1): 63-78.
- Troop NA, Allan S, Treasure JL, Katzman M (2003). Social comparison and submissive behavior in eating disorder patients. *Psychology And Psychotherapy: Theory, Research and Practice* 76(3):237-249.
- Van Zalk N, Van Zalk MHW, Kerr M (2011). Socialization of social anxiety in adolescent crowds. *Journal of Abnormal Child Psychology* 39(8):1239-1249.
- World Health Organization (WHO) (2016). Growth reference 5-19 years. <https://www.who.int/tools/growth-reference-data-for-5to19-years>
- Xu Y, Schneier F, Heimberg RG, Pirincisvalle K, Liebowitz MR, Wang S, Blanco C (2012). Gender differences in social anxiety disorder: Results from the national epidemiologic sample on alcohol and related conditions. *Journal of Anxiety Disorders* 26(1):12-19. doi:10.1016/j.janxdis.2011.08.006
- Yavuzer H (2003). Common parent attitudes: parent school (10th Edition). Istanbul: Remzi Bookstore pp. 115-133.
- Yavuzer H (2016). Parent and child. (17th Edition). Istanbul: Remzi Bookstore.
- Yıldırım İ, Ergene T (2003). Social support, submissive acts, and test anxiety as predictors of academic achievement among high school students. *Hacettepe University Journal of Education* 25(25).
- Yılmaz A (2000). Reliability and validity study of the parent attitude scale. *Turk Journal Child Adolescent Mental Health* 7(3):160-172.
- Yousaf S (2015). The Relation between self-esteem, parenting style and social anxiety in Girls. *Journal of Education and Practise* 6(1):140-142.

Full Length Research Paper

The level of critical thinking of a Jordanian sample of blind students and its relationship with some variables

Feryal Abdel-Hadi Al-Shenikat

Department of Special Education, College of Educational Sciences, University of Islamic Sciences, Jordan.

Received 2 June, 2021; Accepted 2 February, 2022

The present study aimed to find out the level of critical thinking skills of a Jordanian sample of blind students and its relationship with some variables, namely the gender and class level variable. To achieve the objectives of the study, the researcher developed the California Critical Thinking Scale in line with the characteristics of the blind, with the help of several teachers of blind students with experience and expertise. First, the indications of validity and reliability of the scale were extracted by applying the tool to an exploratory sample of (30) male and female blind students. After that, the scale was applied to the final sample from all the governorates of Jordan, which amounted to 66 students from grades tenth, first secondary, second secondary. Then, the data were collected and analyzed. The results indicated that the arithmetic average of the blind students' responses to the California Critical Thinking Test was less than the educationally acceptable standard of (80%); for the five critical thinking skills that were included in the scale, the arithmetic averages of all skills were below the educationally acceptable level, and the highest mean was for the induction skill, then the evaluation skill, inference skill, analysis skill and finally the deduction skill. It is indicated that there are no differences attributed to the gender and class level variables. The study recommended the necessity of providing blind students with critical thinking skills, and providing training courses for blind teachers to activate the critical thinking skills of blind students.

Key words: Critical thinking, blind, California critical thinking scale.

INTRODUCTION

Educational institutions' interest in thinking has emerged by enriching the study materials with many activities that stimulate and motivate students to think in various fields. In addition to the interest in preparing and developing the capabilities and skills of teachers through rehabilitation programs educational workshops, and educational forums, to raise them intellectually and scientifically to

achieve the desired general goals of them, which are: Creating a tangible and desirable change in students' behavior and working on developing their thinking skills and methods to reach a normal, balanced personality (Tafesh, 2004).

Since critical thinking is the key to solving the daily problems individuals face, individuals are exposed to

E-mail: morganiteinstitute@yahoo.com.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

situations in which they are forced to make decisive decisions. Where decisions are sound if they are properly considered; consequently, it leads to satisfactory results, as the higher the level of critical thinking skill of the individual, the more skill he has in dealing with daily problems and issues. Blind individuals are no different from the ordinary in the skill of critical thinking, as the blind is exposed to more obstacles than the ordinary. They need to represent the stimuli they are exposed to daily to deal with them appropriately. Therefore, the blind have varying capacities of critical thinking that require those who provide services to the blind to know their levels, especially since the blind individuals are now enrolled in graduate studies programs, and some of them occupy sensitive positions at the state level; some of them are teachers, including university professors, and some are musicians, and all of these professions require critical thinking skills. Some believe that it is limited to the gifted, and that people with disabilities are excluded from this ability. There is no doubt that the blind have different levels of intelligence that significantly helps the environment to develop it among blind individuals. We can identify indicators of intelligence among the blind, such as: expressing a desire to know the relationships between reasons and causes, classifying various things and putting them into categories, making inference and experimenting. The desire to discover errors and their reading is characterized by the demand for science and mathematics books more than others, as well as the ability to organize relationships and use figures and abstract symbols skillfully in addition to the power of deduction and classification. They like to do scientific, arithmetic, logical and thinking activities; they like games that require thinking such as chess, logical puzzles, and arithmetic stories. They like to measure, classify, weigh, analyze things; can think of abstract concepts in words or pictures, and enjoy numbers, shapes, patterns, and relationships (Gerlid, 2003).

Knowing the level of critical thinking among the blind helps provide appropriate educational programs for the blind consistently with their intellectual levels. It also helps in providing educational strategies suitable for blind children, using critical thinking skills to address multiple aspects according to the curriculum presented to the students. Also, knowing the levels of critical thinking and activating it enhances the blind children's access to the opportunities they deserve, which is reflected in the society's view of blind individuals.

Study problem

Knowing the critical thinking of blind students and activating it in the educational process is very important. Whereas the blind, due to the loss of the sense of sight, are exposed to more obstacles in society than the

sighted, and they need to activate the critical thinking skills in practical life, as critical thinking leads to a deeper understanding of the cognitive content and a high sense of the society in which they live. It improves students' achievement in various academic subjects. It encourages the practice of a wide range of thinking skills, such as problem-solving and creative thinking, and provides opportunities for growth, development, and creativity. It leads to independence in thinking and freedom from dependence and self-centeredness. And it increases the ability to cope with emergencies or news they are exposed to. Furthermore, it leads blind students to monitor and control their thinking, which helps them to make important decisions in their practical life. Knowing and strengthening the level of critical thinking of the blind leads them to achieve their goals and reach their goals in life. This leads to improving society's attitudes towards blind children.

Hence, the researcher aims to answer the following questions:

What is the level of critical thinking skills among blind students?

Are there statistically significant differences in the level of critical thinking among blind students due to the gender variable?

Are there statistically significant differences in the level of critical thinking among blind students due to the school grade variable (tenth, first secondary, second secondary)?

Study importance

The importance of the study lies in the following two aspects:

Theoretical Importance

1. Knowing the level of critical thinking among the blind
2. Providing specialists with information based on the critical thinking skills of the blind, contributes to providing them with the necessary services to develop their capabilities.
3. Providing teachers and parents with the necessary guidance to develop critical thinking skills.
4. Giving a perception for those responsible for educating people with visual impairment on the importance of including teaching people with disabilities critical thinking skills.
5. Adding an authentic addition to the Arab Library, few studies dealt with thinking among people with visual impairments in general and critical thinking, particularly among the blind.
6. Knowing the differences in the level of critical thinking among the blind.

Practical Importance

1. Providing a scale for evaluating the critical thinking skills of people with visual impairment.
2. Providing information about the level of critical thinking of blind students, which is reflected in the methods of education, teaching methods, activities provided to the blind, and the possibility of applying inclusion.
3. Providing appropriate training programs to develop critical thinking among the blind.
4. Encouraging workers with the blind category to build appropriate training programs for the blind category.

The study objectives

The current study aims to:

1. Knowing the level of critical thinking of a sample of blind people in Jordan.
2. Knowing the effect of the class level on the level of critical thinking of the blind.
3. Knowing the effect of gender on the level of critical thinking of the blind.
4. Finding a measure of critical thinking for the blind that has connotations of validity and reliability appropriate to the Jordanian environment.

Procedural definition of terms

Critical thinking: it is defined as reflective, inferential, self-evaluation thinking, which includes a set of strategies and interconnected cognitive processes such as interpretation, analysis, evaluation, and deduction, to examine opinions, beliefs, evidence, evidence, concepts, and claims that are relied upon when making a judgment, solving a problem, or deciding, considering the views of others. It is defined as procedural: the degree obtained by the blind on the California Test of Critical Thinking Skills used in this study (Abu and Nofal, 2017).

1. Critical thinking (Procedurally): The degree that the blind obtains on the California scale developed by the researcher to measure critical thinking among the blind.
2. Blind people: in theory, they cannot write or read except through the Braille method (Al-Hadidi, 2009).
3. Blind people: (procedurally) are the individuals who lose their sense of sight, read and write in Braille, and enroll in schools and centers for the blind in Jordan.

The study limitations

1. How serious are the study sample respondents on the scale?

2. The size of the study population (the blind in the second stage) is approximately 80 students.

The limits of the study

1. Spatial Limits: The study will be applied in all governorates (center, north, and south) in Jordan.
 2. Temporal limits: The study will be applied during the 2019/2020 academic year.
- Human limits: The study will be applied to the blind in the academic stage (tenth, first secondary, and second secondary).

Theoretical framework

Critical thinking

Critical thinking is considered as one of the higher mental processes due to its association with many behaviors such as logic and problem solving and its close association with abstract thinking. So, paying attention to it is urgent and necessary in individuals' lives in particular and societies in general; the individual uses critical thinking to confront the situations that plague him, whether academic or social. Critical thinking skills are present for everyone without discrimination or differentiation, but they need training and practice to produce the desired results (Saadeh, 2003).

Definition of critical thinking

Critical thinking is one of the human mental activities of importance to the development of humanity's march on the face of the earth, and it is one of the forms of thinking most approached by researchers in study and research. Therefore, we may not find a specific definition upon which researchers agree. However, Astleitner (2002) defined critical thinking as: "One of the higher thinking skills that deals with evaluating arguments and the ability of the individual to self-organize to carry out the skills of evaluation, analysis, and deduction.

Based on those above, critical thinking can be defined as a cognitive mental activity that includes several sub-skills of knowing assumptions, interpretation, evaluating arguments, deduction, and it works on an accurate and objective analysis of any claim or belief according to certain criteria to judge the validity of its acceptance or rejection.

The importance of critical thinking

The importance of training in and learning critical thinking is one of the essential ways to ensure effective cognitive

development that allows an individual to use his maximum mental energies to interact positively with his environment, in addition to the importance of critical thinking in building a critical personality capable of distinguishing between right and wrong, reasonable and unreasonable, and not to be led by the opinions presented without deliberation or thinking (Ramer 1998).

Ball (2002) stresses the importance of critical thinking as a tool to face the times' changes. Through it, an individual's beliefs, tendencies, and outlook are formed. The design of critical thinking usually leads to an understanding of the relationship between language and logic. This leads to mastering the skills of analysis and criticism, inductive and deductive thinking, and reaching real and realistic deductions through clear expressions of knowledge and beliefs. The importance of critical thinking lies in the fact that it helps the individual to be more self-understanding and realistic in his dealings with others and the issues he has to tackle. It also helps to imagine how others think. It leads the individual to monitor and control his thinking, which helps him make decisions and take them in his life. The process of training and learning critical thinking includes activating the intellectual processes of the individual based on situations and experiences that require more thinking and not relying primarily on the individual's sensory experiences, which are usually simple experiences that do not require more effort (Abu and Nofal, 2017).

Critical thinking skills

Critical thinking as a cognitive concept includes several sub-skills; there are many classifications of critical thinking skills, according to the multiplicity of its definitions and the theoretical frameworks explaining it. Perhaps the most famous of these classifications is Watson and Glaser's classification of critical thinking skills mentioned in Al-Hallaq (2007). These skills are:

1. Recognizing assumptions refers to the ability to distinguish between degrees of truthfulness or lack of truthfulness of specific information and to distinguish between truth and opinion and the purpose of the information given.
2. Interpretation: It means the ability to define a problem, recognize logical explanations, and decide whether generalizations and results based on certain information are acceptable or not.
3. Deduction: It means the ability to draw a deduction from certain facts or suggestions, and the individual can perceive the correctness of the result from its error in light of the information given.
4. Argument evaluation: the ability to evaluate an idea, accept it, or reject it, distinguish between primary and secondary sources, strong and weak arguments, and

pass judgment on the information's adequacy.

While Facione (1990) classified it according to the findings of American educational scholars at the Delphi conference as follows:

1. Analysis skill: It is the ability to analyze the situation into its elements in order to reveal the existing relationships between them and establish new ones between those parts.
2. Evaluation skill: it means the mental activity that is based on making a judgment about the value, integrity, and quality of ideas or things.
3. Inference skill is a mental reasoning process or new knowledge based on hypotheses or established introductions and available information.
4. Reasoning skill: It is a mental inference process aimed at reaching deductions or generalizations that exceed the limits of available evidence or information provided by prior observation.
5. Induction skill: It is a mental skill that moves the learner from the part to the whole, from examples to the base, and from sub-ideas to total ideas.

While Beyer mentioned in Al-Atoum et al. (2007) believe that critical thinking skills can be classified into the following:

1. First, distinguish truth from the claim.
2. Distinguish objective evidence from randomness.
3. The ability to determine the reliability of the news and opinion
4. Verify the authenticity of the news source.
5. Distinguish ambiguous allegations and evidence from objectivity.
6. The ability to identify the bias of others
7. The ability to distinguish logical fallacies
8. Determine the strength of proof or evidence.
9. The ability to recognize discrepancies between the information

In the current study, the critical thinking skills were based on the California Test Model (2000) translated into the Jordanian environment by Mari and Nawfal (2007). It includes five basic skills designed to provide the subject with some situations and problems that require the use of some mental skills that form critical thinking, and they are as follows:

1. Analysis: It is the ability to divide complex information into small parts with specifying their names and types, to know relationships in sentences, concepts, explanations, or any other form of expression of beliefs, experiences, causes, or information.
2. Induction: It is the ability to make expectations based on rules and laws and a group of observations in issuing

a judgment by referring to the similarity of situations or determining some of the consequences of introductions or previous information.

3. Deduction: It is the ability to derive or draw conclusions according to data, statements, evidence, beliefs, opinions, or explanations, and the individual can determine the correctness or error of the deduction in light of the facts given.

4. Deduction: It is the ability to implement or practice processes that depend on generating arguments and assumptions, searching for evidence, reaching conclusions, and identifying correlations and causal relationships.

5. Evaluation (evaluating arguments): It is the ability to assess the reliability of statements, make judgments on the issues mentioned in the text and clarify strengths or weaknesses in light of the available evidence.

Criteria for critical thinking

Jarwan (2007) believes that the criteria for critical thinking are as follows:

1. Clarity: It is one of the essential criteria for critical thinking. If the statement is vague and unclear, the individual will not know the true meaning behind it, and therefore he will not be able to reach what is required of a clear understanding to reach accurate solutions.

2. Clarity: It is one of the essential criteria for critical thinking. If the statement is vague and unclear, the individual will not know the true meaning behind it, and therefore he will not be able to reach what is required of a clear understanding to reach accurate solutions.

3. Health: This criterion refers to the necessity for the statement presented to be of a high degree of validity and reliability so that this phrase or information is based on official or scientific documents confirmed.

4. Accuracy means giving the subject its right to be treated and verified and accurately expressing it without adding or decreasing it.

5. Connectivity: It means how strong the link or relationship is between the question and the problem's topic at hand.

6. Depth: It means careful research in all parts of the problem at hand and not only delving into generalities.

6. Breadth: It means comparing the problem from all its different aspects.

7. Logic: It means that the inference to solve the problem must be logical.

Students with visual disabilities

The degree of care given by any community to individuals with disabilities - among them the blind - is an essential

indicator by which to judge the extent of society's progress and civilization, by educating and qualifying them, and trying to integrate them into society, and paying attention to research and studies that take them as a focus. Disability is a term that refers to a person's inability to respond to or adapt to the environment as a result of behavioral, mental, or physical problems, which limits his ability to perform his natural role in society based on age and gender; disability is a form of disability and deficiencies, with which the owner feels the loss of one of his organs or the possibility of his potential.

The characteristics of students with visual disabilities

Linguistic characteristics

The visual impairment does not directly affect the acquisition of language for the blind, but it faces problems, including:

1. Replacement: It is replacing a sound with a sound like replacing the shin with sin or the kaf with the qaf.

2. Loudness: The loudness of the voice may not correspond to the nature of the event he is talking about.

3. Not to change the pitch of the voice so that the speech proceeds in a single tone and frequency.

4. Limitations in the use of facial and physical gestures and expressions accompanying speech

5. Verbalism: It is an overabundance of words at the expense of meaning, and this failure results in the accurate use of words or expressions related to a topic or a certain idea, so the visually impaired person intends to narrate a group of words or expressions so that he can communicate or clarify what he wants to say.

6. Deficiency is in expression resulting from the deficiency in the visual perception of some concepts, relationships, or events and the associated deficiency in recalling the verbal connotations that express them.

Social and emotional characteristics

Visual impairment may impose on the individual a specific type of deficiency resulting from the absence or lack of the sense of vision. This leads to the suffering of the visually impaired from multiple problems such as motor problems, and the problems resulting from excessive protection, dependence on others, and deficiencies in social relations. This affects the disabled socially and emotionally. Studies conducted on the link between visual impairment and other disabilities have shown that there are some disabilities associated with visual impairment, the most common of which are: emotional disorders and physical disabilities such as

disturbances in movement and speech, cases of epilepsy, mental retardation, and deafness.

Kinetic characteristics

Blind people face problems in being able to move safely from one place to another due to their lack of knowledge of the environment in which they are moving, and they exhibit stereotypical physical manifestations such as moving hands, turning around the place in which the disabled person is, pulling hair, etc.

Mental characteristics

1. There is no significant difference in intelligence between the blind and the normal child on verbal intelligence tests.
2. The blind has the power of attention and auditory memory.
3. They face difficulties in understanding abstract concepts (Al-Hadidi, 2009).

Measuring critical thinking

Many tests attempt to measure critical thinking for different ages, the most common of which are:

1. Glycerin Watson test: This test was prepared in 1964 and was designed for students of the ninth grade according to two forms; it is one of the most common equivalent tests. It consists of five sub-skills: knowledge of assumptions, argument evaluation, interpretation and deduction, and induction; each skill consists of an attitude towards it that shows the degree of his practice of thinking skills from a group of situations followed by several statements that require the individual to take the previous critic.
2. California test of critical thinking skills: This test was prepared by Fascists (1992) for students from the tenth grade through the university level. It consists of two pictures, each containing (34) multiple-choice paragraphs. This test measures the skills of analysis, evaluation, deductive reasoning, and inductive reasoning.
3. The Thinking Critical Weir-Ennis test, a multi-faceted essay test, was prepared in 1985. It is designed for the secondary and university levels and measures a large number of critical thinking dimensions. The test gives freedom to the subject to evaluate discussions and scrutiny and to evaluate individually.
4. The Cornell Test for Critical Thinking: This test was prepared in 1985 in two levels, the first starting from the fourth grade until the university level, the second covers the second stage until adulthood. The test is designed in

group discussion situations on general issues. In the end, the individual is asked to judge the validity of some of the discussions' results and the extent of its reliability with reality. The test measures the following skills: deduction, induction, determine and identification, defining postulates, reliability of phrases, and meanings (Facione, 2006).

Intelligence and thinking skills of blind students

Intelligence among blind students can be identified through many indicators, including: Expressing a desire to know the relationships between causes and etiology, classifying various things and placing them into categories, carrying out inference and experimentation, and the desire to discover errors in what surrounds them of things, and their reading is characterized by the demand for science and mathematics books more than others, as well as the ability to organize relationships and skillfully use abstract numbers and symbols in addition to the power of deduction and classification; they like to do scientific, mathematical, and logical activities and thinking, like games that need thinking such as chess, logical puzzles, and arithmetic verbal stories, and like to measure things, classify, weigh, analyze them and can think of abstract concepts with words or pictures, and enjoy numbers, shapes, models, and relationships, and the learner also has a talent for solving problems, and an ability to deal with graphs.

Their mental abilities are sound, which requires developing their capabilities to make them social actors in society. On the other hand, the lack of the sense of sight will hardly make them tend to develop their other senses such as hearing, speaking, touching, and discovering the world through them, and trying to compensate for that deficiency that he suffers from, which makes them aware of things through their description of him. Thus, his perception of things has an objective framework; the Arabs previously said insight, not sight, which is a description that may indicate the abilities of visionary, as it was previously called. And it is one of the senses that the human mind is indispensable for, as the image provides the individual with information and knowledge of more than a thousand words, as well as its coverage and abbreviation, and the sense of sight is one of the senses essential for human learning. Since the blind do not differ from the sighted except in the aspects related to visual loss, the differences between them and their other peers are individual differences in the development of mental, psychological, and physical abilities (Amer and Muhammad, 2008).

The researcher believes that the level of critical thinking among the blind depends on the level of intelligence of the blind, the experiences he goes through, and the amount of support he receives from the family and

society.

Blind psychology assessment

As the experiences of blind people differ from those of blind people, the use of standardized psychometric tools to assess the psychological characteristics and needs of blind people has come under increasing criticism in the past few years. However, many factors push researchers to continue using standardized measurement tools, and the most important of these factors is the lack of adequate tools specifically designed to assess the blind.

However, real dangers may result from such practice, including:

1. First, the measurement specialists lack knowledge of visually impaired persons' developmental characteristics, leading to inaccurate deductions.
2. To adopt standards that have been applied to persons without disabilities.
3. Applying and correcting the tests in a modified way casts doubts on the real benefit intended from the tests.

It is appropriate to employ informal evaluation methods that are not based on tests, and these methods include observation, interview, and assessment lists. Some of the standardized psychological tests used in studying the blind are California Personality Test, Emotional Factors Test (for the blind), Minnesota Multifaceted Test (for the blind), Projective Auditory Test (for the blind), Sentence Completion Test, Lowenfeld Blind Anxiety Test, 1973).

Previous studies

The previous studies related to the subject of the study will be reviewed according to their sequence from the oldest to the most recent; they will be divided into two parts:

The study of Ashour and Al-Najjar (2017) aimed to investigate the level of critical thinking and the level of self-efficacy among graduate students in the Faculties of Education in Palestinian universities, as well as to reveal the differences in the level of critical thinking according to the variables (gender, specialization, and university) and the possibility of predicting the level of self-efficacy through the critical level of thinking. The study sample consisted of the master's students in the Faculties of Education and their number (90) male and female students. The researchers used the critical thinking scale and the self-efficacy scale. The results showed that critical thinking among the research sample members is below the educationally acceptable level. On the other hand, the level of research self-efficacy among the

research sample members is appropriate; the results showed no differences in the level of critical thinking according to the variables of gender and specialization. The results also indicated an unpredictability of research self-efficacy through critical thinking. The study recommended work to raise the level of research self-efficacy of graduate students to gain mastery, training faculty members in colleges of education to teach critical thinking skills and paying attention to university education in deduction, evaluation and analysis in particular, and thinking skills in general.

Kamel and Issa (2011)'s study aimed to determine the effect of using the Learning Dimensions Model on developing reading the map and critical thinking among fifth-grade students with learning difficulties. The study sample consisted of 54 students of the fifth grade of primary school from Prince Sultan Educational Complex, Bilal bin Rabah School, and Jaafar bin Abi Talib School in Riyadh. The map reading skill test, the critical thinking skills test and the Raven Intelligence Sequential Matrix Test were applied to achieve the study's goal; the teacher's guide and the student handbook were used in the two study units prepared according to the learning dimensions model. The study found significant differences between the experimental group's mean scores using the learning dimensions model. The study also found that there are statistically differences between the average scores of the experimental group that was studied using the model of learning dimensions and the control group that was studied in the usual way in testing the skill of reading the dimensional map in the direction of the experimental group. There were also statistically significant differences in the mean scores of the experimental group in the pre-measurement and the post-test in testing the skill of reading the map in the direction of post-measurement; the mean scores of the experimental group were studied using the learning dimension model. The control group found statistically significant differences that were studied in the usual way in testing critical thinking skills in the direction of the experimental group. Also, significant differences were found between the mean scores of the experimental group in the pre-measurement and the post-measurement in the test of critical thinking skills in the statistical direction of the post-measurement.

Kamashad (2011)'s study aimed to reveal the creative thinking capabilities of blind students in Kuwait in light of age, gender, and degree of visual impairment. For this purpose, the researcher prepared a test of creative thinking abilities for the blind, and the test consisted of four parts, each part measuring one of the four creative thinking abilities (sensitivity to problems, originality, flexibility, fluency). It was applied to 81 male and female blind students divided into three different age groups. The results of the study highlighted the existence of statistically significant differences between blind students

with the ability to think creatively due to age in favor of the two older groups; while the results showed that there were no statistically significant differences between totally blind students as a whole and partially blind students as a whole with the abilities of creative thinking. Also, there were statistically significant differences in fluency that could be attributed to the interaction between the student's gender and the degree of his visual impairment in favor of the blind female. In light of these results, this study concluded with the recommendation of the necessity of enriching and enhancing activities and various training programs, intending to develop the creative thinking abilities of blind students in the State of Kuwait.

Ashour (2019)'s study aimed to find out the effectiveness of an educational program in mathematics based on intellectual intelligence in improving critical thinking among blind students in the tenth-grade students in Amman. The study sample consisted of 24 male and female students chosen by the intentional method. They were divided into two groups: one is an experimental group consisting of 12 male and female students, and the other is a control group consisting of 12 male and female students from the tenth grade of the Royal Academy of the Blind in 2018 / 2019. An educational program based on intellectual intelligence was built to achieve the study goal, and the critical thinking test prepared by Watson and Glaser was used and applied to the experimental group. It resulted in a statistically significant difference between the experimental and control groups' scores, which indicates that teaching mathematics using a program based on intellectual intelligence had an impact in improving critical thinking among blind students. There is no statistically significant difference attributed to the gender of the student. There is no statistically significant difference between the answers of the experimental and control groups due to the interaction of the program based on intellectual intelligence with the gender of the blind students.

The study of Issa and Ali (2019) aimed to identify the cognitive thinking skills of blind students and those with learning difficulties in light of a number of variables represented in the classroom and the type of disability. The study sample consisted of 120 students, including 49 students with visual impairment in Riyadh and 71 students with learning difficulties enrolled in learning difficulties programs at Al-Muthanna Bin Haritha School, King Saud Elementary Complex and King Abdulaziz City for Science and Technology School in Riyadh during the school year 1435-1436 AH. To achieve the aim of the study, the researchers used the scale of cognitive thinking skills; the scale was applied by teachers in institutes and programs of visual impairment and teachers of learning difficulties on the study sample students. To answer the study questions, arithmetic averages and standard deviations were calculated, and a

"T" test was calculated to indicate the differences between the averages. The results showed that the average scores of the blind students on the scale of cognitive thinking skills are high compared to the average scores of students with learning difficulties in all classes and those students from fourth to sixth grade who are blind and those with learning difficulties possess a high level in cognitive thinking skills. It also indicated statistically significant differences at the level of 0.01 between the average scores of blind students and those with learning difficulties on the scale of cognitive thinking skills due to the school grade variable in favor of grades from fourth to sixth grade. In addition, it indicated statistically significant differences at the level of 0.01 between the average scores of blind students and those with learning difficulties on the cognitive thinking skills scale due to the variable of the type of difficulty in favor of the blind students.

METHODOLOGY

Study population

The study population consisted of (100) blind students enrolled in schools for the blind in Jordan.

The pilot study sample

A sample of 30 blind students was taken in Abdullah bin Maktoum's study, and the scale was applied to the students after converting it to Braille, in cooperation with the teachers in the school, to find indications of validity and reliability, and to take notes on the scale.

The final sample

The sample was chosen by the intentional method. The final sample consisted of 66 blind people enrolled in special schools for the blind from all governorates in Jordan (Table 1).

Study tool

The California Critical Thinking Scale, in its original modified form, in the Jordanian environment.

The California Test of Critical Thinking Skills model (2000) was used in its modified version of the Jordanian environment (Mari and Nawfal, 2007). This is to measure the degrees of critical thinking of the study sample.

This test consists of 34 items divided into five sub-skills of critical thinking skills, namely:

1. Analysis skill: The number of its paragraphs is (6), which are (3, 5, 6, 11, 13, 18).
2. Induction skill: the number of its paragraphs is (6), which are (22, 24, 31, 32,33, 34).
3. The skill of deduction: The number of its paragraphs is (4), which are (8, 14, 15, 23).
4. Inference skill: The number of its paragraphs is (12), which are (1, 4, 9, 10, 12, 20, 21, 26, 27, 28, 29, 30).
5. Evaluation skill: the number of its paragraphs is (6), which are (2, 7, 16, 17, 19, 25).

Table 1. Distribution of study individuals according to the study variables.

Parameter	Categories	Number
Gender	Males	35
	Females	31
	Total	66
The class level	Tenth	21
	First secondary	11
	Second secondary	34
Total		66

Connotations of validity and reliability of the modified California scale on the Jordanian environment

The tool validity

Content validity: The California Test of Critical Thinking indicates validity in the Jordanian environment. Mari and Nawfal (2007) offered the test to five faculty arbitrators. In the University College of Educational Sciences and Al-Isra Private University, and in light of the results of the arbitration, the initial image of the translated scale into the Arabic language was reviewed, and some amendments were made to some paragraphs in terms of accuracy of translation from English into the Arabic language. Also, some amendments were made to the language of some paragraphs that are ambiguous. Thus, the test preserved its number of (34) items, distributed over the five critical thinking skills.

Reliability of the scale in its original modified form on the Jordanian environment

Reliability coefficients were available for this test in the Jordanian environment. For example, in the study of Mari and Nawfal (2007), the overall reliability coefficient was 0.86; for each of the five skills of analysis, extrapolation, deduction, inference, and evaluation, it was 0.84, 0.83, 0.73, 0.88, 0.81), respectively.

California advanced blind scale

Scale development

The scale was developed through the following steps:

1. The scale was displayed in its modified Jordanian form to a group of blind teachers and administrators. Then, it was sent through (WhatsApp) where the readable material was converted into audible through a special application for the blind, and they were required to read the paragraphs judge their suitability for the blind, and make appropriate proposals in preparation for developing the scale.
2. The scale was displayed in its modified Jordanian form to a group of sighted teachers who teach the blind at Abdullah Bin Maktoum School for the Blind, where the scale was sent through (WhatsApp), where the material was converted into audible through a particular application for the blind. They are required to read the paragraphs, judge their suitability for the blind, and make appropriate proposals.

2. The researcher reviewed the scale several times to preserve the appropriate paragraphs for the blind and replace the inappropriate items in proportion to their characteristics.

3. Paragraphs containing the drawing and illustrations were deleted.

4. Some paragraphs containing graphics were replaced with descriptions of the attached graphics.

5. Some terms were deleted and replaced with familiar terms for the blind, such as poor, weak. They were replaced by the word (weak). In Paragraph No. (19,24,25,30), the scale in its original form translated into Arabic.

6. Some items were deleted (28,29,30) in the scale in its original form so that the number of paragraphs became 30 paragraphs.

7. Delete some expressions that require the sense of sight and replace them with terms that require other senses, such as hearing, for example (while I was watching TV). It was replaced by (while I was listening to the news) in Paragraph 4 of the scale with its original form translated into Arabic.

8. The researcher considered the blind and their teachers' suggestions and made appropriate adjustments to the scale.

9. The initial image of the scale was obtained so that the scale in its initial form consists of (30) items that measure the following sub-skills:

10. Analysis skill: the number of its paragraphs is 5, which are 3, 5,9,11, 16.

11. Evaluation skill: the number of its paragraphs is 6, which are 2, 6, 14, 17, 23, and 15.

13. Inference skill: The number of its paragraphs is 8, which are 1, 4, 8,10, 18,19,24,25.

14. The skill of deduction: the number of its paragraphs is 4, which are 7, 12, 13, 21.

15. Induction skill: the number of its paragraphs is 6, namely 20,22,26,27,28,29.

16. Then, the researcher presented the scale's initial image to a group of arbitrators and specialists in Jordanian universities, where the arbitrators made some of the proposed amendments.

17. The scale was converted into a speaking scale through an application called (Voice Over) available on Apple devices and Android devices (Talkback), cooperating with Abdullah Bin Maktoum School for the Blind.

Validity of the California advanced blind scale

First: To verify the validity of the content in the current study, the researcher presented the test to 10 arbitrators who specialize in the fields of special education, educational psychology, psychological and educational counseling, and the Arabic language of the

Table 2. Reliability coefficients for the Critical Thinking Scale by the Cronbach Alpha and split-half method.

Number	Sub dimensions	Cronbach Alpha	Split-half method
1	Analysis	0.78	0.80
2	Evaluation	0.80	0.81
3	Inference	0.77	0.74
4	Deduction	0.81	0.77
5	Induction	0.74	0.72
Overall		0.84	0.82

teaching members at Jordanian universities and the Ministry of Education. The judges were asked to give their opinions and observations about the suitability of the test questions, the integrity of the drafting of its items, and the clarity of its meaning from a linguistic point of view. Then, the amendments, notes, and proposals were taken into consideration, and to keep the paragraphs that obtained an agreement rate (80%) or more by the arbitrators on the required amendment, whether negative or positive.

Reliability of the developed California Blind Scale

Two methods were studied to calculate the reliability, the first using the Cronbach alpha equation and the second using the split-half method. The reliability was calculated through a survey sample of 30 blind secondary school students, and reliability was calculated for the three sub-dimensions that make up the scale and for the scale as a whole. These results are presented in Table 2.

It is clear from Table 2 that the reliability coefficient for the scale as a whole calculated using the Cronbach Alpha equation reached 0.84; it is also clear from the table that the reliability coefficients for the sub-dimensions of the scale ranged between 0.81-0.74. The reliability coefficient was the highest for the dimension of deduction and the lowest for induction. Therefore, the reliability coefficients calculated using the Cronbach-alpha equation for the scale are considered acceptable and satisfy the study's purposes.

Second, reliability is calculated by the split-half method. It is evident from Table 2 that the reliability coefficient for the scale as a whole calculated by the split-half method reached 0.82; it is also clear from the table that the reliability coefficients for the sub-dimensions of the scale ranged between 0.81-0.72, where the reliability coefficient was the highest for the evaluation dimension and the lowest reliability coefficient for the induction dimension. Therefore, the reliability coefficients for the scale calculated by the semester method are also acceptable and fulfill the study objectives.

Scale correction

The California Blind Test consists of 29 multiple-choice items, and each item has four alternatives; some paragraphs have five options, with one mark for each correct answer and zero scores for the wrong answer. Thus, the total score of the test ranged from 0-29 degrees, and hence the maximum score for the five skills composing the test is as follows:

1. The skill of analysis: the number of its paragraphs is 5, which are 3, 5, 9, 11, 16.
2. Evaluation skill: the number of its items is 6, which are 2, 6, 14,

17, 23, and 15.

3. Inference skill: the number of its paragraphs is 8, which are 1, 4, 8, 10, 18, 19, 24, 25.

4. The deduction skill: the number of its paragraphs is 4, which are 7, 12, 13, 21.

8. Induction skill: the number of its paragraphs is 6, namely 20, 22, 26, 27, 28, 29.

Study procedures

The study objectives were achieved according to the following procedures:

1. The researcher got the approval of the scale's owner (Dr. Ahmed Nofal) to develop and apply the scale to a sample of blind people.
2. The scale was presented to a group of teachers from Abdullah bin Maktoum School to judge the scale's paragraphs regarding their suitability for blind students and take their notes. The researcher considered all the observations and developed the scale to suit the characteristics of the blind.
3. The researcher prepared the scale and extracted the indications of its validity and reliability.
4. The researcher obtained
5. Official approval from the Jordanian Ministry of Education (A book to facilitate the researcher's mission).
6. The researcher determined the study population in Jordan.
7. After converting the scale into Braille, it was applied to an exploratory sample of (30) blind students to reach validity, reliability, and taking notes.
8. The researcher applied the scale to the final study sample (100) blind students in Jordanian schools.

Data collection

Conduct appropriate statistical treatments to answer the study questions.

Statistical processors

The arithmetic averages and standard deviations of the blind students' scores were calculated on the critical thinking test sub-skills. For the overall score of the California test, a criterion of 80% has been determined to be taken as an acceptable educational level for the level of possession of critical thinking skills on the California test for that critical thinking variable based on the study of Ashour and Al-Najjar (2017) and Mari and Nawfal (2007), which set the acceptable educational critical level of thinking skills at (80%). And to answer the second question, the arithmetic means and

Table 3. Arithmetic means and standard deviations of blind students' scores on critical thinking skills in the California test.

Number	Skill	Number of paragraphs	Arithmetic average	Standard deviation	Rank	
1	Analysis	5	0.273	0.178	4	Educationally acceptable arithmetic mean 80%
2	Evaluation	6	0.328	0.178	2	
3	Inference	8	0.326	0.168	3	
4	Deduction	4	0.261	0.221	5	
5	Induction	6	0.351	0.219	1	
Overall		29	0.313	0.079		

standard deviations of the blind students' scores were calculated on the California Critical Thinking Test according to the gender variable. The t-test was also calculated to judge the significance of the differences in critical thinking skills between male and female students.

According to the grade variable, the arithmetic means and standard deviations of the blind students' scores were calculated on the California Critical Thinking Test. According to the grade variable, a One-Way ANOVA was also performed to judge the significance of differences in critical thinking skills.

RESULTS

The following is a detailed presentation of the results of the statistical treatments of this study:

The first question: What is the level of critical thinking skills among blind students?

The arithmetic means and standard deviations of the blind students' scores on the critical thinking skills of the California test and the overall score of the test were calculated, and the following is a presentation of these results.

It is evident from Table 3 that the arithmetic average of the blind students' responses to the California Critical Thinking Test reached 0.313 with a standard deviation of 0.079, which is less than the educationally acceptable standard (80%). As for the five critical thinking skills that were included in the scale, their arithmetic averages ranged between 0.261-0.351. This also means that all skills were below the educationally acceptable level, where the highest arithmetic average was for the induction skill with a mean of 0.351 and a standard deviation of 0.219. Then the evaluation skill with arithmetic mean of 0.328 and a standard deviation of 0.178, the inference skill with arithmetic mean of 0.326 and a standard deviation of 0.168, the skill of analysis of 0.273, and finally the deduction skill with arithmetic mean of 0.261 and a standard deviation of 0.221.

The second question: Are there statistically significant differences in the level of critical thinking among blind students due to gender?

The arithmetic averages and standard deviations of the

blind students' scores were calculated on the California Critical Thinking Test according to the gender variable. The t-test was calculated to judge the significance of the differences in critical thinking skills between males and females. The following is a presentation of these results.

Table 4 shows that there are no statistically significant differences in the level of critical thinking between male blind students and female blind students in each of the skills (analysis, evaluation, deduction, and induction), as well as the overall score of the California Critical Thinking Test, where the values of t were not significant at the level of significance ($\alpha = 0.05$). However, it is also clear from Table 4 that there are statistically significant differences between male blind students and female blind students in the inference skills. The value of t was 2.22, which is statistically significant at the level of significance ($\alpha = 0.05$), and these differences were in favor of blind students.

The third question: Are there statistically significant differences in the level of critical thinking among blind students due to the grade variable?

According to the grade variable, the arithmetic averages and standard deviations of the blind students' scores were calculated on the California Critical Thinking Test. A One-Way ANOVA was also performed to judge the significance of differences in critical thinking skills according to the grade variable, and the following is a presentation of these results.

It is evident from Table 5 that there are apparent differences in the scores of the blind students on the sub-skills of the California test for critical thinking and the total score of the quiz according to the grade variable. To determine whether these differences are statistically significant, a One-Way ANOVA analysis was performed for the sub-skills and the test as a whole. The following is a presentation of these results.

It is evident from Table 6 that there are no statistically significant differences due to the class variable in the level of critical thinking in all critical thinking skills (analysis, evaluation, inference, deduction, and induction) as well as in the overall score of the California Critical Thinking Test. The p-values were not statistically significant at the significance level ($\alpha = 0.05$).

Table 4. T-test results to indicate the differences in critical thinking skills between male blind students and female blind students.

Field	Gender	Number	Arithmetic average	Standard deviation	(T) test	Degrees of freedom	Significance level
Analysis	Male	35	0.25	0.11	-1.32	64.00	0.191
	Female	31	0.30	0.23			
Evaluation	Male	35	0.34	0.17	0.71	64.00	0.483
	Female	31	0.31	0.19			
Inference	Male	35	0.37	0.19	2.22	64.00	0.030
	Female	31	0.28	0.13			
Deduction	Male	35	0.25	0.26	-0.44	64.00	0.661
	Female	31	0.27	0.18			
Induction	Male	35	0.35	0.20	-0.13	64.00	0.895
	Female	31	0.35	0.24			
Overall	Male	35	0.32	0.06	0.84	64.00	0.404
	Female	31	0.30	0.10			

DISCUSSION

What is the level of critical thinking skills among blind students?

The results related to the first question indicated that the arithmetic average of the blind students' responses to the California Critical Thinking Test was less than the educationally acceptable standard of 80%. For the five critical thinking skills included in the scale, all skills' arithmetic averages were below the educationally adequate level. The highest arithmetic average was for the induction skill, then the evaluation skill, the inference skill, the analysis skill and finally the deduction skill. The researcher uses the traditional methods of teaching and the keenness on the part of some teachers of the blind to communicate information to the blind students in all its realistic details without interest in giving examples or asking questions that provoke critical thinking such as questions that require searching for the source of the information and questions that need exploring the truth. The teacher is satisfied to present the information in the language of the blind without resorting to critical thinking skills so as not to distract the blind. The result also found that the highest average arithmetic was in the skill of induction, which is a skill that requires that prediction be based on rules and laws and the issuance of judgments by referring back to the similarity of the situations. The researcher believes that this result is logical. The blind depend, in their review, on previously known rules and laws; they rely on similar situations to pass judgment, as they lack the sense of sight; the delivery of new

information to them depends on the information known to them to simulate through it. This result is consistent with Kamashad (2011)'s study which recommended the necessity of providing enriching programs and various training to develop innovative thinking skills for blind students in the State of Kuwait.

Are there statistically significant differences in the level of critical thinking among blind students due to the gender variable?

The results indicated no statistically significant differences in the level of critical thinking between male blind students and female blind students in each of the skills (analysis, evaluation, deduction, and induction); these differences were in favor of blind students. The researcher attributes this result to the fact that all blind students, whether male or female, are exposed to the same type of education that focuses on the senses of hearing, touch, smell, and taste. Therefore, the level of skills related to the critical thinking process depends on the inputs through the senses and the way they are processed, through mental activities; the treatment method depends on the accuracy of the input and the fact that the blind lack the sense of sight, and some information requires the presence of the sense of sight to complete the real picture for them. The results indicated a decline in these skills, and it showed differences in the inference skills, and the differences were in favor of blind students. The researcher attributes this result to the fact that blind males may have more opportunities than

Table 5. Arithmetic means and standard deviations of the blind students' scores on critical thinking skills in the California test according to the grade variable.

Field	Class	Number	Arithmetic average	Standard deviation
Analysis	Tenth	21	0.27	0.17
	First secondary	11	0.24	0.15
	Second secondary	34	0.29	0.19
	Overall	66	0.27	0.18
Evaluation	Tenth	21	0.35	0.17
	First secondary	11	0.41	0.17
	Second secondary	34	0.29	0.18
	Overall	66	0.33	0.18
Inference	Tenth	21	0.30	0.17
	First secondary	11	0.34	0.18
	Second secondary	34	0.33	0.17
	Overall	66	0.33	0.17
Deduction	Tenth	21	0.21	0.21
	First secondary	11	0.23	0.24
	Second secondary	34	0.30	0.22
	Overall	66	0.26	0.22
Induction	Tenth	21	0.34	0.17
	First secondary	11	0.27	0.19
	Second secondary	34	0.38	0.25
	Overall	66	0.35	0.22
Overall	Tenth	21	0.30	0.08
	First secondary	11	0.31	0.04
	Second secondary	34	0.32	0.09
	Overall	66	0.31	0.08

indicated no statistically significant differences based on the gender variable.

Are there statistically significant differences in the level of critical thinking among blind students due to the class variable?

The results indicated no statistically significant differences attributed to the class variable in the level of critical thinking in all critical thinking skills (analysis, evaluation, inference, deduction, and induction). Likewise, in the overall score of the California Critical Thinking Test, where q values were not statistically significant, the researcher attributes this result to the fact that blind students in all grades receive their education depending on the remaining senses. The teachers also focus on communicating information to the blind students through Braille, and most often, their educational and behavioral goals do not include developing thinking skills in general

and critical thinking in particular. The researcher recommends through this study the necessity of including blind curricula and activating thinking skills, especially since blind students are enrolled in higher studies, and some of them are qualified to take on influential roles in society; and the teachers of blind students should be enrolled in training courses to activate the critical thinking skills of the blind. This finding agrees with Kamashad (2011)'s study which indicated no differences between the group as a whole.

Recommendations

Educational recommendations

1. Provide training courses for teachers to develop critical thinking skills among blind students in Jordanian schools.
2. Enrich the blind textbooks with thinking skills in general and critical thinking in particular.

Table 6. Results of the One-Way ANOVA analysis of differences in critical thinking skills between Male blind and female blind students.

Field	The source of the contrast	Sum of squares	Degrees of freedom	Average of squares	P	Significance level
Analysis	Class	0.02	2	0.01	0.37	0.696
	Error	2.03	63	0.03		
	Overall	2.05	65			
Evaluation	Class	0.13	2	0.07	2.18	0.122
	Error	1.92	63	0.03		
	Overall	2.05	65			
Inference	Class	0.02	2	0.01	0.27	0.766
	Error	1.82	63	0.03		
	Overall	1.84	65			
Deduction	Class	0.11	2	0.06	1.17	0.316
	Error	3.06	63	0.05		
	Overall	3.18	65			
Induction	Class	0.10	2	0.05	1.07	0.348
	Error	3.02	63	0.05		
	Overall	3.12	65			
Overall	Class	0.01	2	0.00	0.47	0.630
	Error	0.40	63	0.01		
	Overall	0.41	65			

Research recommendations

1. Conduct studies related to the critical thinking skills of blind pre-school children.
2. Conduct studies on building training programs to develop critical thinking skills at different ages.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

REFERENCES

- Abu JS, Nofal M (2017). Teaching theoretical and practical thinking. Amman: House of the March for Publishing, Distribution, and Printing.
- Al-Atoum A, Al-Jarrah A, Bashara M (2007). Development of thinking skills, theoretical models, and applications. Amman: House of the March for Publishing, Distribution, and Printing.
- Al-Hadidi M (2009). Introduction to Visual Impairment, 3rd Edition, Dar Al Fikr: Amman.
- Al-Hallaq A (2007). The effect of free, directed, and restricted writing change strategies on developing critical thinking skills and expressive performance skills. Amman: House of the March for Publishing, Distribution, and Printing.
- Amer T, Muhammad R (2008). Visual Impairment, Edition 1, Cairo: Taiba Foundation for Publishing and Distribution.
- Ashour M, Al-Najjar M (2017). The level of critical thinking and its relationship to research self-efficacy among graduate students in the Faculties of Education in the Gaza Governorates, Journal of Al-Quds Open University for Research and Educational and Psychological Studies 6(19).
- Ashour M (2019). The effectiveness of an educational program in mathematics based on intellectual intelligence in improving critical thinking among blind students in the tenth grade of primary education in Amman, Journal of the College of Basic Education for Educational and Human Sciences, University of Babylon P 42.
- Astleitner H (2002). Teaching Critical Thinking. Journal of Instructional Psychology 29(2):53-76.
- Ball B (2002). What's Mathematical Thinking? Mathematics Teaching. ERIC Document Reproduction Services No. EJ 663487.
- Facione PA (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction (Research Report). Millbrae, CA: The California Academic Press. [https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=1054399](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1054399)
- Facione P (2006). Critical thinking what it is and why it counts? Retrieved [date] from: https://www.student.uwa.edu.au/__data/assets/pdf_file/0003/1922502/Critical-Thinking-What-it-is-and-why-it-counts.pdf
- Gerlid D (2003). Critical Thinking. www.chss.Montclair.edu/net/CriticalThinking.html
- Issa Y, Ali A (2019). Cognitive thinking skills of blind students and those with learning difficulties in light of some variables, Journal of Educational Sciences, Imam Muhammad bin Saud University.

- Jarwan F (2007). Teaching Thinking: Concepts and Applications. Amman: Dar Al Fikr Publishers and Distributors.
- Kamashad H (2011). Creative thinking capabilities of blind students in Kuwait in light of age, gender, and degree of visual impairment, Master Thesis, Arab Gulf University, Bahrain.
- Kamel M, Issa Y (2011). Using the learning dimensions model on developing the skill of reading the map and critical thinking among fifth-grade students with learning difficulties. Journal of the Faculty of Education - Assiut University.
- Mari T, Nawfal M (2007). The level of critical thinking skills among students of the University College of Educational Sciences (Al-Anwar). Al-Manara Magazine13:4.
- Ramer C (1998). The Influence of the Jefferson- Centennial Practicum on the Self-Efficiency of Five Social Studies Students Teachers. DAI 59(9):3146A.
- Saadeh J (2003). Teaching thinking skills. Amman: Al-Shorouk house for Publishing and Distribution.
- Tafesh M (2004). Teaching thinking, its concept, methods, and skills. Amman: Juhayna House for Publishing and Distribution.

Full Length Research Paper

Cementing devices and ambiguity in the Holy Qur'an: Al-Qasas Surah as a model

Jibreel Harb Al-Saudi^{1*} and Aiman Eid Al-Rawajfeh²

¹Department of English Language, Faculty of Arts and Sciences, The World Islamic Sciences and Education University, Amman 11947, Jordan.

²Department of Chemical Engineering, Faculty of Engineering, Tafilah Technical University, Tafilah 66110, Jordan.

Received 3 June, 2021; Accepted 2 February, 2022

This study aims to identify the cementing devices used in the Holy Qur'an, Al-Qasas Surah, in particular. Specific cementing devices appear to connect the phrases and clauses contextualized in the verses of this Surah. Three exegeses and three different translations of the meaning of the Holy Qur'an were referred to in this study for data collection and data analysis. The study's findings indicate that these devices have more than one sense, leading to other meanings and interpretations. The study also concluded that cementing devices reveal additional senses and interpretations of the verses discussed in this Surah. Furthermore, the study highlights the relationship between cementing devices and ambiguity, which appears clearly in the verses and gives rise to a different understanding of the meanings and interpretations of the verses discussed in this paper.

Key words: Ambiguity, cementing devices, Holy Qur'an, meaning, Al-Qasas Surah.

INTRODUCTION

Not only is discourse analysis concerned with analyzing language and its linguistic forms, it also focuses on describing language meanings and their multiple senses (Brown and Yule, 1983, as cited by Al-Harashsheh and Kanakri, 2013). The primary function of language in discourse is to exchange meanings with different senses among speech community members. This paper aims to identify some discourse markers (cementing devices) used in the Holy Qur'an, using Surah Al-Qasas as a model. Researchers have proposed many definitions of discourse markers. Fraser (1999) states that researchers have introduced discourse markers with several

meanings. For instance, many studies have been conducted on discourse markers and cohesive devices using various terms referring to discourse markers (Al-Shishtawi, 2020). These include discourse connectives, discourse operators, discourse particles, discourse signaling devices, phatic connectives, pragmatic connectives, pragmatic expressions, pragmatic formatives, pragmatic markers, pragmatic operators, pragmatic particles, semantic conjuncts, sentence connectives, and lately cementing devices.

The technical term 'Cementing Devices' was first used in a study on discourse markers in the Holy Qur'an,

*Corresponding author. E-mail: morganiteinstitute@yahoo.com.

conducted by Al-Rawajfeh (2018), Al-Rawajfeh and Al-Khalafat (2019). They defined such a new term, which is equivalent to the term *discourse marker*, as a common word, phrase, clause, sentence, or a particle, or even a mark or pause used between two sentences or phrases that give a specific meaning related to the preceding sentence or phrase and another meaning to the following sentence or phrase. According to Jucker (1993), the term *discourse particle* is also equivalent to *discourse marker*. The former term is used to indicate the same linguistic elements as the latter. However, the two terms are sometimes used to refer to different usages. Furthermore, Alami (2015) defined discourse markers as dependent elements that classify speech by combining interactional and variation methods to discourse so that the roles of markers in the created discourse can be analyzed.

Furthermore, Schiffirn (1987) states that using discourse markers indicates the discourse topic boundaries, where one topic ends, the next topic starts, and they play a significant role in directing the pragmatic nature of discourse. Fraser (1999) indicates that the sentence meaning can be analyzed into two different senses: content meaning, where a sentence carries only one sense and the other is a pragmatic definition based on the intention of the speaker "speaker's meaning." According to Halliday and Hasan (1976), text unity is generally concerned with some cohesive devices that can be used in different parts of the text to create other meaningful relations leading to the agreement of the text (Huneety et al., 2017).

Another semantic term suggested by Halliday and Hassan (1980) is *cohesion*, which is found in text and situation as linguistic and extra-linguistic entities, giving the text continuity by making sense relations between the different parts of the text. According to De Beaugrande and Dressler (1981), cohesion indicates how the elements of the text surface structure, including phrases, sentences, and clauses, are connected through a sequence. Cohesion is defined by Halliday (1994) as 'the set of resources for constructing relations in a discourse which transcend grammatical structure' (p. 309). Leech (2001) considered cohesion as a way through which ideas are linguistically connected to introduce texts. Furthermore, in the terminology of the interpretation of the Quran, language cohesion has been accommodated by Quranic scholars with the term "Munasabah" between verses and letters.

Moreover, Johnstone (2002) points out that cohesion links sentences to other sentences in a text, showing that a set of internal cohesive devices exists. These include reference, conjunctions, and substitution, which enable text receivers to relate the various portions of the text and combine them. According to Graesser et al. (2004: 193), cohesion uses unambiguous structures, words, phrases, or sentences that help interpret the practical ideas in a text connecting ideas with themes and topics. Besides,

lexical cohesion is referred to as 'the relationships in meaning between lexical items in a text and, in particular, content words and the relation between them' (Partridge, 2012: 117).

However, the researchers of this study have used the term cementing devices to refer to discourse markers or cohesive devices. As a technical term, Cement is defined in *Mariam-Webster Dictionary* as "Bind or join with or as if with cement," or "a binding element that serves to unite firmly." Therefore, this term can be used in discourse to refer to uniting or bringing together two sentences affecting their meanings by contributing different senses to the text. Cementing devices are essential semantic parts through which texting relation can provide a variety of purposes and senses to the sentence and its components. Moreover, cement devices refer to discourse markers or cohesive devices that researchers know, but they are also phrases or sentences that can convey different senses in the text.

According to Kiraz (1994), Arabic is a firmly structured and highly derivational language. To understand the Arabic language, the treatment of the language constituents is required at all levels. Therefore, this study aims at identifying and understanding cementing devices used in Al-Qasas Surah in the Holy Qur'an. It also attempts to analyze such devices that have led to various interpretations and meanings conveyed in this Surah. Moreover, it aims at showing the relationship between these cementing devices and the lexical items associated with them in the verses and the intended meaning in the text. The discourse in the Quranic text has two meanings. The first meaning is the call, and the second meaning is the overall message that the Noble Qur'an wants to convey to people. An example is: "O people...". The verses of the Holy Qur'an were filled with this call. For example, suppose we want to extend our eyesight a little, in that case we find that people's speech is equal to the speech of man, "Oh, man." All the places in which the human being was mentioned were blame, or description and characteristics. Examples of this are the Almighty's saying: "We created man from a sperm," then it is true, but when the Almighty God says: "O man, what has deceived you about your generous Lord," that is to blame, and reprimand, unlike mentioning a person without a call, such as: "We created man, and we know what his soul whispers to him."

Before the assignment, the human being was the one to which the messages were revealed at different eras. If the human nature before the assignment was true, then this person, after the assignment, takes a position on this assignment. For example, Qur'an did not speak of the call to Muslims but instead spoke of the believers with the difference between Islam and faith. The term "people" refers to man, and he has transcended species and nature to meeting and interacting. Referring to a person or people will equate the two before commissioning; therefore, it is a general discourse that does not address

supporters of a specific mandate or a specific message but instead begins with nature and roots, making the public discourse absolute. It is the origin of creation before social manifestations such as language, culture, color, civilization, and religious affiliation.

Thus, the Holy Qur'an addressed man absolutely on the basis that the people in the Qur'an are human beings, and the fluctuation between people and humans in the Quranic discourse continues to produce meanings and connotations. Therefore, the union of man and people indicates that the jinni is the other side of the Almighty's saying in Surat Al-Nas: "From heaven and people." People or human beings indicate the unity of origin before meeting and commissioning; therefore, a man in every field and era is man, his share of life gains varies, according to the environment and upbringing. Anatomy and natural formation confirm that man is one and that he is born equal with others, and that after birth, he is acquired, and this is the basis that wastes claims of racial superiority, racism, and others.

METHODOLOGY

The descriptive and analytical approach was applied in this study by referring to three different translations of the Holy Qur'an. These include translations of Al Madina (2007), Pickthall (2002), and Kattab (2015). Furthermore, two more exegeses were also used to interpret the meaning of the verses and the functions of the cementing devices employed in these verses. These exegeses include *Fi Zilal al-Qur'an* (In the Shade of the Qur'an) by Sayyed Qutub (1959) and *Al-Jami' li Ahkam al-Qur'an* by Al-Qurtubi (2006). Finally, after identifying the cementing devices in the Surah, the researchers reviewed the interpretations of the verses, including those devices, analyzing their functions that reveal different senses and interpretations expressed in this Surah.

RESULTS

In this study, special attention is paid to identifying and analyzing lexical devices, which are called from now on cementing devices, in the Holy Qur'an, Al-Qasas Surah in particular. It is essential to point out that few studies have been recently conducted by Al-Rawajfeh (2018), Al-Khalafat, Al-Rawajfeh (2019), Al-Marayat et al. (2019), and Hajjaj and Al-Rawajfeh (2020). These studies, which are concerned with cementing devices/ markers and the relationship between lexical items used in a text such as words, phrases, or sentences in the Holy Qur'an, act here as a starting point for this study, as an increasing interest in lexical devices used in the Holy Qur'an. This study, however, is concerned with identifying and analyzing cementing devices, which are used to connect sentences or phrases to express two or more related meanings. For example, in verse (25), Allah says,

فَجَاءَتْهُ إِخْدَاهُمَا تَمْشِي عَلَى اسْتِحْيَاءٍ قَالَتْ إِنَّ أَبِي يَدْعُوكَ لِيَجْزِيَكَ أَجْرَ مَا سَقَيْتَ لَنَا

"Then one of the two women came to him, walking

bashfully. She said, "My father is inviting you so he may reward you for watering 'our animals' for us (Khattab, the Clear Qur'an, 2015).

The prepositional phrase "على استحياء" (*shyly*), functions as an adverb of manner, describing the woman's walk "one of the two women came to him walking shyly." However, the exact prepositional phrase can explain the following sentence, "She said," describing how the woman spoke. This shows that the prepositional phrase is used as a cementing device that links both sentences and specifies them simultaneously.

Textual coherence is an essential component of the text in the ancient Arab heritage, and in the text, it means verbal and moral continuity through the units of a text or a discourse. Textual coherence is one of the essential elements by which the Quranic text becomes a coherent and coherent unit. The ancient Arab scholars took care of it under the bosom of the Quranic miracle, and they put "the coherence of the Quranic text" as the essential criterion for the Quranic miraculousness, whether this coherence is verbal or moral. The ancient Arab scholars took care of it under the bosom of the Quranic miracle, and they put "the coherence of the Quranic text" as the most crucial criterion for the Quranic miraculousness, whether this coherence is verbal or moral. We find in the Arab heritage several manifestations of textual cohesion, the most important of which are: "connection," "systems," "compatibility," "cohesion," "correlation," "proportionality," "consistency," and others. It is also used clearly in another example on lexical devices is found in the verses (33-34),

قَالَ رَبِّ إِنِّي قَتَلْتُ مِنْهُمْ نَفْسًا (33) وَأَخِي هَارُونُ هُوَ أَفْصَحُ مِنِّي لِسَانًا... (34) فَاخَافُ أَنْ يَقْتُلُونِ

"... I have killed a man among them, and I fear that they will kill me (33). My brother Harun –is more eloquent than me... (34)" Khattab, the Clear Qur'an, (2015).

The phrase (وأخي هارون) "*And my brother Harun*" starts the verse (34), and so connect it with the verse (33), giving two different meanings. The first meaning can be understood if verse (33) is linked with this phrase "*And my brother Harun*," and so Moses said that he and his brother together might be killed by the Pharaoh. However, the phrase gives another meaning if it is linked with the phrase "*is more eloquent than me (34)*", to describe Harun as more eloquent than Moses. This also shows that the phrase "*And my brother Harun*" is a cementing device that gives two meanings depending on the sentence it modifies.

Furthermore, this cementing device is found in other verses in the same Surah. For instance, the prepositional phrase "*With Our Ayaat* (verses, signs, proofs...) in verse (35) can reveal two meanings as to what it modifies.

... وَنَجْعَلْ لَكُمْ سُلْطَانًا فَلَا يَصِلُونَ إِلَيْكُمَا بِآيَاتِنَا أَنْتُمْ وَمَنِ اتَّبَعُكُمْ الْعَالَمُونَ

"...and grant you both authority, so they cannot harm you. With our signs (Ayaat), you and those who follow you will 'certainly' prevail." Khattab, the Clear Qur'an, (2015).

The first meaning is established when the prepositional phrase "With Our signs" modifies the pronoun "you" that precedes it; the meaning becomes they will not be able to harm both of you with the signs you have. Nevertheless, the phrase brings about another understanding if the exact phrase "With Our signs" modifies the clause that follows it, where the meaning becomes "with Our signs, you both and your followers are victorious. As can be seen, the prepositional phrase reveals two distinct meanings based on the constituent it modifies.

Similarly, the prepositional phrase "And on the Day of Judgment" in verse (42) also can be interpreted to express two meanings based on which it modifies.

وَأَتَّبَعْنَاهُمْ فِي هَذِهِ الدُّنْيَا لَعْنَةً وَيَوْمَ الْقِيَامَةِ هُمْ مِنَ الْمَقْتُولِينَ (42)

"We caused a curse to follow them in this world, and on the Day of Judgment, they will be among the outcasts (42)" Khattab, the Clear Qur'an, (2015).

The first meaning is revealed by the phrase: "on the Judgment Day", which is associated with the previous clause as a complement of the sentence "We caused a curse to follow them in this world". This indicates that they are cursed in this world and on the Day of Resurrection. However, the same phrase brings about an unrelated meaning as it complements the following finite clause "they will be among the contemptuous." In this sense, the phrase indicates that not only are they cursed in this world, but also they will be among those who will be prevented from receiving Allah's Mercy, despised. Syntactically speaking, the meaning of the exact prepositional phrase is affected by the relation between the two clauses with this phrase and what it modifies.

Furthermore, verse (43) has two different meanings based on the way it is read. The verse says:

وَلَقَدْ آتَيْنَا مُوسَى الْكِتَابَ مِنْ بَعْدِ مَا أَهْلَكْنَا الْقُرُونَ الْأُولَىٰ بِصَاحِبِ الرَّسُولِ وَرَحْمَةً لَّعَلَّهُمْ يَتَذَكَّرُونَ (43)

"Indeed, We gave Moses the Scripture—after destroying earlier nations—as an insight for the people, a guide, and mercy so perhaps they would be mindful (43)" (Khattab, the Clear Qur'an, 2015).

To illustrate, the verse can be interpreted as Moses being given the Scripture (Torah) after destroying the ancient generations. However, if a pause occurs after the word, then a new meaning can be conveyed as Moses was given the Torah after defeating Pharaoh and taking his people away.

In addition, there are more cementing devices in Al-

Qasas Surah that connect two verses revealing different meanings and interpretations.

For example, the verse (51) ends with the clause:

وَلَقَدْ وصلنا لهم الكتاب لعلهم يتذكرون (51)

"We have conveyed the Word to them, so that they may remember (51)."

And verse (52) starts with:

الَّذِينَ آتَيْنَاهُمُ الْكِتَابَ مِنْ قَبْلِهِ (52)

"Those to whom We gave the Scripture before it, they believe in it (52)."

As can be seen, the clause "so that they may remember" links the two verses (51, 52) and expresses two distinct meanings. The first meaning comes from that Allah conveyed the Word (The Qur'an in which is the news of everything) to the people, and so they may remember or receive admonition (The Noble Qur'an, 2007). However, the other meaning can be understood when completing this clause with the following verse. Here, the purpose revealed is that they may remember those (Jews and Christians) who were given the Scripture (that is, the Torah and the Bible) before the Qur'an (Al-Sabouni, 1981). Another sense can be understood when the verse (52) is read alone. In this sense, those (Jews and Christians) who had been given the Scripture (the Torah and the Bible) before the Qur'an do believe in it (The Noble Qur'an, 2007).

Moreover, verse (66) is related to the previous verse (65), as it is connected with it. Therefore, when reading the phrase

فَعَمِيَتْ عَلَيْهِمُ الْأَنْبَاءُ يَوْمَئِذٍ فَهُمْ لَا يَتَسَاءَلُونَ

"They will be too dumbstruck on that Day to ask one another for answers." Khattab, the Clear Qur'an, (2015).

The phrase "On that Day" refers to the Day when Allah calls them, which is mentioned in verse (65). Therefore, the news (of the excellent answer) will be obscured on that day. However, when continuing the reading of the verse (66), the meaning can be on that day, they will not be able to ask one another (The Noble Qur'an, 2007).

Another example is revealed in verse (68), which has two different senses. Allah said,

وَرَبُّكَ يَخْلُقُ مَا يَشَاءُ وَيَخْتَارُ ۗ مَا كَانَ لَهُمُ الْخِيَرَةُ ۗ سُبْحَانَ اللَّهِ وَتَعَالَىٰ عَمَّا يُشْرِكُونَ (68)

"Your Lord creates and chooses whatever He wills, and He chooses—the choice is not theirs. Glorified and Exalted is Allah above what they associate with Him" (68)," Khattab, the Clear Qur'an, (2015).

In this verse, the first meaning is that the Lord creates what He wills to create, and He selects whoever or whatever He wills for His authority. No one has the command and choice, but all that is for the Lord alone

-*"the choice is not theirs"* (Al-Qurtubi, 2006). On the other hand, the verse has a different interpretation, which can be understood by the fact that Lord creates and chooses whoever or whatever He sees is good for them. It has been realized that having a pause after the sentence *"Your Lord creates and chooses whatever He wills, and He chooses"* expresses the meaning that only the Lord chooses what He wants and creates. However, completing the verse with the appositive clause *"... and He chooses whatever He wills"*, that is, the Lord selects anyone or anything good for them (Al-Qurtubi, 2006). This reveals a difference in the verse (68) interpretation, which leads to a different understanding and meaning.

DISCUSSION

Having identified some cementing phrases and sentences associated with different meanings expressed in some texts of the Holy Qur'an, Al-Qasas Surah as a model, it has been realized that a relationship exists between these cementing devices and ambiguity. That is to say, the structure of such devices and the ways how they combine two phrases or sentences revealed a range of different interpretations and understanding the metaphorical meaning in the verses discussed in this Surah. Therefore, it is ambiguous where a word, phrase, or sentence gives rise to different meanings and senses. This is attributed to the grammatical syntactic representation of the sentence or phrase, which has two distinct meanings, sometimes leading to different interpretations. Furthermore, the examples and verses discussed above reveal ambiguity, which appears in all the examples, and that the same cementing devices link the two sentences or phrases together and give different meanings.

When referring to the cementing devices mentioned above, there appears a high degree of ambiguity regarding their relationship in the text. To illustrate, the prepositional phrase (عَلَى اسْتِحْيَاءِ/ Galaa Estehya'a) that functions as an adverb meaning *shyly*, is ambiguous as it specifies the verb *walking* in the first sense; however, it conveys another metaphorical meaning when it modifies the verb *said*. Another example is the conjunction (وَ/Wa: *and*), which is used to introduce a sentence or indicate addition, especially of items within the same class or type. In Arabic specifically, it is sometimes used to express accompaniment or *with*. In this sense, verse (34) completes verse (33) and indicates two different interpretations of the two verses. Thus, when (Wa: *and*) expresses accompaniment, the meaning given here is that Moses feared that they would kill him and his brother, Harun (Al-Sabouni, 1981). However, the second sense is when (Wa: *and*) indicates addition, linking the two sentences together, so the meaning differs. Again, this shows that other functions express different meanings.

Another example of cementing devices that shows

ambiguity in its use is the phrase (بِآيَاتِنَا), which means *With our Ayaat (signs)* (35). In this verse (35), the prepositional phrase reveals two different meanings based on what this phrase modifies, showing ambiguity in its interpretation. The previous section shows that changing the primary constituent entails two different variations with a different understanding of the verse (Al-Sabouni, 1981). This is clear evidence that this prepositional phrase expresses ambiguity, through which the range of various interpretations can be implied. Other instances of ambiguity exist due to the nature of cementing devices used in this Surah, as language expresses necessarily a kind of vagueness (Kreidler, 1998).

Moreover, ambiguity is clearly expressed in the verse (42) as Allah says:

"We caused a curse to follow them in this world, and on the Day of Judgment, they will be among the outcasts (42)". Khattab, the Clear Qur'an.

Here, the word which shows ambiguity is the conjunction (*and*) that connects the preceding sentence with the following phrase *"on the Judgment Day"*. In this sense, the meaning becomes that Pharaoh and his soldiers were cursed in the world *and* on Resurrection Day. But, on the other hand, when the phrase *and on the Day of Judgment* is linked with the following sentence, the meaning reveals that they are cursed, and on Judgment Day, *"they will be among the contemptuous."*

To add more, verse (43) reveals more examples with cementing devices that bring about ambiguous interpretation and different meanings. For example, the preposition *"after"* in verse *"We gave Moses the Scripture -after destroying earlier nations"* can be interpreted into two different meanings. The first notion is that Moses was given the Scripture after destroying the earlier nations. Thus, the preposition *"after"* manifests the incident taken against the earlier nations' incident. However, the expression (مِنْ بَعْدِ/ *after*) establishes another different meaning when a pause occurs on it. As known, a pause sometimes has its function in a language, and so when a reader reads this verse and pauses on the word (مِنْ بَعْدِ/ *after*), there appears a different interpretation, which leads to a difference in meaning. The meaning expressed here is that Moses was given the Scripture after he had destroyed Pharaoh and his army. Ambiguity is shown clearly in this verse as the same expression (مِنْ بَعْدِ/ *after*) reveals different meanings.

In addition, ambiguity is made clear in this Surah as expressed by verse (64). One obvious meaning can be revealed through stating that the Lord creates whatever He wills and chooses whoever or whatever is good for them. This is shown by using the particle (مَنْ/ *who*), a determiner that refers to whoever or whatever. However, the same particle (مَنْ/ *who*) may be interpreted as it has a different function, negation (not). This new function reveals a different meaning to the verse in that the Lord

creates whatever He wills and selects, and they are not the ones who choose, but the Lord is the one who chooses; *"the choice is not theirs"* (Qutub, 1959). It has been noticed that this verse has more than one sense, which indicates that it is ambiguous. As can be seen, the previous examples, where cementing devices are used to show coherence in Al-Qasas Surah's verses, clearly manifest some sense relations, that is, ambiguity.

The research on Quran concepts has removed a field with excellent scope for investigating what the researcher expanded to investigate. This is because the entire Qur'anic concepts contain inwardly and outwardly mental and heart connotations that help understand the text underlying the apparent meanings of the verses and the surahs. Therefore, scholars paid attention to these Qur'anic concepts and gave them all the attention, whether they studied them as a linguistic lesson, a graphic lesson, or an explanatory lesson based on the logical and sensible aphorisms of the ancients and moderns. Perhaps among those concepts are the concepts of (tyranny) and (arrogance), which were mentioned in several verses and surahs of the Noble Qur'an, and they were expressive of the meaning intended for them to make clear to the Muslim.

These two concepts were mentioned in Surat Al-Qasas, which is unanimously agreed by the commentators (Makkah). We know that the group of Meccan Surahs that were revealed before the migration of the Messenger of God (- may God's prayers and peace be upon him) contained references from the news of the previous nations that struck the ears of the tyrants and arrogant infidels of Quraysh who denied the message of the Messenger of God (may God's prayers and peace be upon him). So, they needed to pay attention to why they heard the news of the tyrants and the arrogant so they might be taught by it and turn back from their tyranny and arrogance in the land.

Conclusion

The current study has been concerned with identifying and analyzing cementing devices used in the Holy Qur'an, primarily in Al-Qasas Surah. Generally, the study demonstrates the uses of these devices associated with their different functions and meanings, which are found in this Surah. The analysis also reveals a relationship between such devices and ambiguity, as different interpretations were evidenced in the verses discussed in this study. Given the above examples, it is evident that cementing devices serve several functions in the verses found in Al-Qasas Surah in the Holy Qur'an. However, such devices also showed several ambiguous implications and interpretations, revealing different meanings and senses associated with these devices. The study showed that there is a relationship between cementing devices and ambiguity. This relation is based on the other senses conveyed through these devices, which have different

functions and meanings as well. The study also indicated the significant role of the sentence structure of the verses in interpreting the phrase or word that has more than one sense and meaning, based on its position in verse and what it specifies.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interest.

REFERENCES

- Alami M (2015). Pragmatic functions of discourse markers: a review of related literature. *International Journal on Studies in English Language and Literature* 3(1):2347-3126.
- Al-Harashsheh A, Kanakri M (2013). The Pragmatic Functions and the Translatability of "Ṭayib" in Jordanian Spoken Arabic. *US-China Foreign Language* 11(3):196-202.
- Al-Khalafat K, Al-Rawajfeh AE (2019). Cementing phrases in the Holy Qur'an: Models from Surah h Al-Baqara. *Revista de Al-Andalus* 5:18.
- Al Madina (2007). Al Madina Translation Center: Translating the Meaning of the Holy Qura'n. Saudi Arabia.
- Al-Marayat SH, Al-Rawajfeh AE, Al-Zregat AM, Al-Hanaktah II (2019). Cementing markers in the Holy Qura'an: The word sawaa? 'whether' as a model. *International Journal of English and Education* 8(4):220-228.
- Al-Qurtubi MA (2006). *Al-Jami' li Ahkam al-Qur'an*. Al-Qāhirah : Dār al-Sha'b, Egypt.
- Al-Rawajfeh AE (2018). Secrets of the Interconnections in the Holy Qur'an: Cementing Phrases. *Alutroha (in Arabic)* pp. 3-7.
- Al-Sabouni Ali (1981). *Safwit Al-Tafaseer*. Beriut: Darul-Qur'an Al-Kareem.
- Al-Shishtawi H (2020). The Pragmatic Functions of 'Mashi'in Modern Arabic Language. *International Journal of Language and Linguistics* 7(1):32-49.
- De Beaugrande R, Dressler W (1981). *Introduction to text linguistics*. London: Longman.
- Fraser TH (1999). A new species of cardinalfish (Perciformes: Apogonidae) from the Bay of Bengal, Indian Ocean. *Proceedings of the Biological Society of Washington* 112(1):40-44.
- Graesser AC, McNamara DS, Louwerse MM, Cai Z (2004). Coh-Metrix: Analysis of text on cohesion and language. *Behavioral Research Methods, Instruments, and Computers* 36(2):193-202.
- Hajjaj D, Al-Rawajfeh (2020). The use of the cementing marker *minkebl* in the Holy Qur'an: A Semantic Analysis. *International Journal of Language and Linguistics* 7:1.
- Halliday MAK, Hasan R (1976). *Cohesion in English*. London, England: Longman.
- Halliday MAK (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Arnold
- Huneety A. (2017). *Cohesion in Religious and Literary Arabic Texts*. M.A. Thesis, Yarmouk University
- Johnstone B (2002). *Discourse Analysis*. Oxford: Blackwell Publishing.
- Jucker AH (1993). The discourse marker well: A relevance-theoretical account. *Journal of Pragmatics* 19(5):435-452.
- Kiraz GA (1994). *Computational analyses of Arabic morphology*. arXiv preprint [cmp-lg/9408002](https://arxiv.org/abs/19408002).
- Kreidler CW (1998). *Introducing English Semantics*. Routledge. London and New York.
- Partridge B (2012). *Discourse analysis: An introduction*, 2nd (ed.). London: Bloomsbury Publishing
- Pickthall M (2002). *The Meaning of the Glorious Koran: An Explanatory Translation*. London: Everyman's Library
- Qutub S (1959). *Fi Zilal al-Qur'an* In the Shade of the Qur'an).
- Schiffir D (1987). *Discourse markers*. Cambridge: Cambridge University Press.

Full Length Research Paper

A source for technical and musical development in piano education: Analysis of Manookian “Etudes for the Intermediate Pianist” Method

Özlem Ömür

Music Education, Fine Arts Education, Faculty of Education, Kastamonu University, Turkey.

Received 17 December, 2021; Accepted 31 January, 2022

In this study, the American pianist and composer Jeff Manookian's "Etudes for the Intermediate Pianist" method was examined. In this qualitative study, the descriptive research model was employed and the literature was scanned through document review. As a result of the examination, no study was found on Manookian's piano etudes. To that end, Jeff Manookian's "Etudes for the Intermediate Pianist" method was examined by considering the characteristics and differences of the etudes, and the elements that the composer aimed to use in the etudes were stated. It is seen that each etude in the method includes practices that will enable to overcome a different technical difficulty. Including the nuances of musical expression in the etudes and emphasizing the musical terms reveal that the composer adopted an approach that aims to care and increase musicality as well as technical development. Manookian etudes also have a writing style that supports pedal use and performance improvement. As a result of the study, it is thought that Manookian's etudes for intermediate pianists can be used as an alternative source in piano education.

Key words: Jeff Manookian, piano education, piano etudes.

INTRODUCTION

Etudes, which play the most important role in providing technical development in piano education, are musical works that handle various technical difficulties in forms larger than exercises (Pamir, n.d.). Etudes are used very effectively in the education process with both their different technical difficulty levels and the way they are applied (Kurtuldu, 2009). The concept of etude in piano literature was first used in the 18th century, and became popular in piano education in the early 19th century. This

situation paved the way for the creation of new methods by gathering the etudes for amateur and professional musicians (Ferguson and Hamilton, 2005). In this period, the etudes written by composers such as Carl Czerny, Muzio Clementi, and J.Baptist Cramer in the field of piano were exemplary studies with the first method feature. These methods are still important today and are frequently used as developmental etudes at different levels of piano education.

E-mail: oomur@kastamonu.edu.tr.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

Etudes in the literature are used in order to overcome the technical difficulties faced by the students in piano education in Turkey as well as all over the world (Alper, 2021). Etudes written especially for beginner and intermediate level are the most applied in education. In these etudes, it is aimed to ensure the independence and equality of the fingers, to teach correct finger, hand, wrist and arm positions, the octave, chord playing technique, the hand opening, the positions in the parallel, opposite and diagonal movements of the hand, to develop competencies such as legato (tied), non legato (untied), and staccato (detached) playing (Bilir, 2016). In addition to all these, etude studies in piano education are also very important in terms of developing and completing the technical-musical skills of students, increasing their sight-reading skills, and making their command of the piano sufficient (Yılmaz, 2018).

With the development of the mechanism of the piano instrument and the piano technique, the etudes written for the piano developed over time and reached the level of distinguished works for concert purposes that require virtuosity (Tufan, 2004). Especially Chopin, Liszt, Scriabin and Moszkowski are among the composers who wrote examples of such etudes.

In piano education, the right etudes should be selected according to the student's needs, age, physical structure, proficiency, awareness and comprehension, and current level in piano education, and these etudes should be studied in a controlled manner with the educator (Yılmaz, 2018). Etudes are better known through analysis. In this way, the perception and adoption of etudes becomes easier. Examining etudes for educational purposes will make positive contributions to the piano education process (Kurtuldu, 2009).

Kutluk (2001) and Kasap (2004), in their research, determined that Czerny, Duvernoy and Burgmüller are the most preferred etudes and exercises in institutions providing piano education in Turkey. In particular, including the same beginner and intermediate level etudes in the piano education process creates a vicious circle and causes etude studies to turn into a repetitive process (Engül and Pirgon, 2020). For this reason, it is thought that it is important to introduce new and different etudes written for beginner and intermediate level in piano education to students and to add these etudes to the repertoire. Based on this idea, it is aimed to examine Jeff Manookian's "Etudes for the Intermediate Pianist" method in this study.

Jeffrey Donelson Manookin, better known as Jeff Manookian (1953-2021), is an American pianist, composer, and conductor. He stood out as a piano prodigy in his youth and won many awards and achievements at an early age. Known for his performance and prolific composition, Manookian has written solo works and concertos for piano as well as etudes (MOA, 2021). These etudes are "Etudes for the Young Pianist" that he wrote for young pianists and "Etudes for the

Intermediate Pianist" he wrote for intermediate level pianists, which is the subject of this research.

Problem

The problem of this study is to provide intermediate pianists with the Manookian "Etudes for the Intermediate Pianist" method as a source for technical and musical development.

Significance of the study

This study is of great importance in terms of introducing an alternative educational resource and a composer at the same time. It is also significant as it is an analysis of an alternative resource that can be used in both amateur and professional piano education.

METHOD

In this part of the research, the research model, universe and sample, data collection and analysis are presented.

Research model

This study, which is based on field research in instrument education, is a qualitative research. Qualitative research can be defined as "research aimed at revealing perceptions and events in a realistic and holistic way in a natural environment by using data collection techniques such as observation, interview and document analysis" (Yıldırım and Şimşek, 2008). The document analysis method used in the research is also a qualitative research method used to analyze written materials such as books and magazines, which are specified as documentary scanning and carry traces of past phenomena (Karasar, 2008).

Data collection and analysis

In the study, the literature was scanned through document review and studies on piano etudes used in piano education were examined (Poyrazoğlu 2007; Toptaş and Çeşit, 2014; Oğan and Albuz, 2013; Sezen, 2021; Ahmetoğlu, 2020; Öztürk, 2007; Kurtuldu, 2009; Umuzdaş, 2012; Kalkanoğlu, 2020; Engül and Pirgon, 2020; Alper, 2021). Document review has shown that there is no study on Manookian's piano etudes. As a result of the data obtained, it was decided to examine Jeff Manookian's "Etudes for the Intermediate Pianist" in terms of general characteristics and the elements that the composer aimed to use in the etudes. Thus, the study was limited to the Manookian "Etudes for the Intermediate Pianist" method.

After that the Jeff Manookian's Etudes for the Intermediate Pianist (Manookian, 2011) was obtained from Internet Music Score Library Project (IMSLP) website. Even though the book is not in the public domain, it has a Creative Commons license. As written in the IMSLP website: Works not in the public domain can be submitted, with the creator's permission, using a Creative Commons license.

Then all 12 etudes in the book were analyzed. First, they were all played on piano to understand the pianistic approach the composer

Figure 1. "Etudes for the Intermediate Pianist", 1st Etude, Measures 1-4 (Manookian, 2011).

was using. After that the whole recording of the album which was performed by the composer himself was listened to for the same reason. The following steps were followed in the analysis of each etude:

1. The technique that the etude trains
2. Finger numbering analysis
3. Interval and chordal analysis
4. Scale analysis
5. Overall lookup for distinctive features

All the data obtained are presented in the Findings section. For each etude an analysis text was written, and sheet music of important sections was presented.

FINDINGS

Information and features of the 12 etudes in the Manookian "Etudes for the Intermediate Pianist" method are here. The composer created a separate small title for each etude. In the analysis, examples of etudes are presented with figures.

Etude No.1- Corrente

From a compositional point of view in the 1st etude, the composer focused on the repetition of five consecutive sounds over different pitches and on tonal contrasts. The first measure is in C major with eighth notes, followed by a broken arpeggio of B-flat major in the right hand in the second measure. In the third measure, the first five sounds belonging to the E Major tone appear as descending. These tonal changes, encountered in almost every measure, dominate the entire etude. This five-tone motif is embroidered with a contrapuntal writing and tonal excursions.

The technical structure that the etude practices is the descending and ascending sequences given in different tonalities consisting of 5 consecutive fingers (Figure 1). Another remarkable issue here is finger numbers. In

traditional finger number use, 5th and 1st fingers are not preferred on black keys, except for some very fast passages. However, the composer did not follow this tradition in this study and used a different working methodology. The e flat note on page 7 (measure 55) is always taken with the 1st finger. While the use of the 2nd finger would be traditionally preferred at this tempo, the composer chose the 1st finger. It is thought that the reason for this is the absence of finger transition, which is seen throughout the etude.

Etude No.2- Teneremente

The 2nd etude consists of the continuous repetition of 6th (interval) leap motif seen in incomplete measure and the accompaniment movement that started in the left hand in the 1st measure. When viewed harmonically, the arpeggio in the left hand in the 1st measure belongs to the F major chord (tonic) in the first four notes, while in the last two notes it is sub-dominant. Meanwhile, in the right hand, the b flat note is held as a pedal. It is seen that this situation prevails throughout the work. The composer used anticipation and apogiatural sounds harmonically and evaluated the right and left hands as non-chord tone in tonal context. In this way, it provided a harmonic coloring (Figure 2).

When examined technically, the etude practices large arpeggios (Figure 3). Mostly, octave arpeggios between the 1st and 3rd notes or exceeding octave arpeggios are encountered. In places such as the second line (21st measure) on page 9, it is aimed to play the transitions from left hand to right hand as if playing with one hand. In the etude, it is supported to make these transitions with the help of pedals.

Etude No.3- Scorrevole

The 3rd etude begins with the 5 note chromatic scales

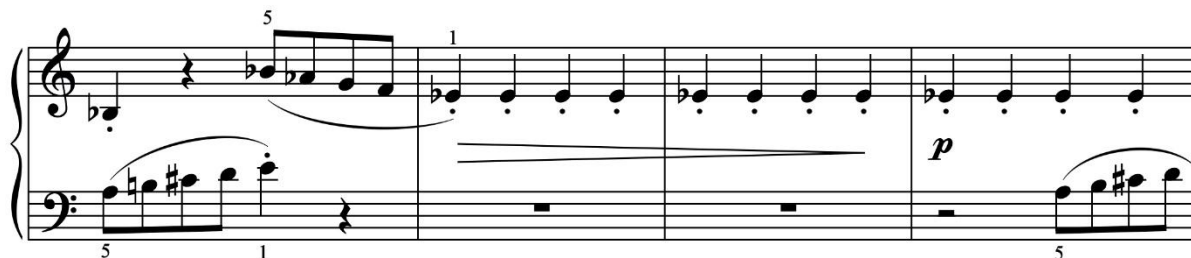


Figure 2. "Etudes for the Intermediate Pianist", 1st Etude, Measures 54-57 (Manookian, 2011).

Figure 3. "Etudes for the Intermediate Pianist", 2nd Etude, Measures 1-4 (Manookian, 2011).

Figure 4. "Etudes for the Intermediate Pianist", 2nd Etude, Measures 20-22 (Manookian, 2011).

appearing as ascenders and then descenders in the right hand, and the double-voiced accompaniment in the left hand. In the first three measures, a major chord relationship appears between accompaniment and scales. In the first measure, c and e notes are accompanied in the left hand, while the chromatic scale in the right hand begins with the g note, that is, the 5th of the major chord (Figure 4). This continues in the second and third scales as well. However, starting from the 4th measure, the system deteriorates and such a structure is not encountered.

With the 5th measure, the accompaniment and chromatic sequential structure, which is encountered at

the beginning, leaves its place to the descending and ascending contrapuntal structures that seem like a duet between the right and left hands (Figure 5). Then, in the 15th measure, the chromatic structures pass to the right hand again, and monophonic and double-voiced accompaniments appear in the left hand. Then, the chromatic scales were extended by combining them as descending-descending, descending-ascending, and the accompaniment was transformed into wider arpeggiations. Starting from the 45th measure, the structure at the beginning was given again and the section was finished with the change of all the structures used before (scale combination, contrapuntal

Scorrevole (♩ = 60)

The score for Figure 5 shows four measures. The right hand plays five-note chromatic runs in both directions, with fingerings 1-5 and 5-1 indicated. The left hand plays sustained chords. Dynamics include *mp* and *col pedale*.

Figure 5. "Etudes for the Intermediate Pianist", 3rd Etude, Measures 1-4 (Manookian, 2011).

The score for Figure 6 shows five measures. The right hand continues with chromatic runs, including some with fingerings 2 and 5. The left hand provides accompaniment with chords and moving lines.

Figure 6. "Etudes for the Intermediate Pianist", 3rd Etude, Measures 5-9 (Manookian, 2011).

The score for Figure 7 shows five measures. The right hand continues with chromatic runs, with fingerings 1 and 5 indicated. The left hand provides accompaniment. Dynamics include *mf* and *mp*.

Figure 7. "Etudes for the Intermediate Pianist", 3rd Etude, Measures 15-19 (Manookian, 2011).

movements, wide arpeggios). The composer considered the use of pedals appropriate for this etude.

Technically speaking, the etude concentrates on the chromatic training of the right and left hands. In addition, another technically striking factor is that, as seen in the first four measures, the 5-note chromatic modules next to each other are played with 5 consecutive fingers. Etude mainly employs this structure, which can be practical at fast tempos. For chromatic passages of more than 5 notes, finger crossing is required. However, in some places, for example, in the long chromatic passages on the right hand of 35-36th measures, this practice is left aside and returned to classical fingering. In the 32nd

measure, classical fingering is used since the left hand cannot be used consecutively in the short five-note passage (Figures 6 and 7).

Etude No.4 –Vivace

In the 4th etude, the composer practices only the scale. However, these scales are different from the classical practice (Figure 8). Scales that are not related to each other and that do not end with a tonic sound are encountered consecutively with 1 or 2 measure structures. Rather than two hands playing together, the



Figure 8. "Etudes for the Intermediate Pianist", 3rd Etude, Measures 35-39 (Manookian, 2011).



Figure 9. "Etudes for the Intermediate Pianist", 4th Etude, Measures 13-18 (Manookian, 2011).

composer played the scales with one hand and had the other hand accompaniment. The only difference, apart from scale playing, is the hemiola type accompaniment, which we encountered for the first time in the right hand at the 17th measure. The composer used it occasionally as an accompaniment to scales.

Etude No.5- Scherzando

In the 5th etude, the composer has a finger-changing repetition (repeated note) practice. These practices are done outside of tonal harmony as much as possible. Conventional chords are not encountered (Figure 9). For example, in the first measure, the incomplete a flat quartet immediately after the e note or the g-a flat

augmented 4th that follows indicate the search for a difference. In this way, a search for tonal dissonance is encountered throughout the piece. For example, the e flat repetition on the left hand natural sound in the 5th measure can be given as an example. This etude, which is abundantly encountered with sliding harmonies, technically employs a repetition in a way that is different than harmonic habit.

Etude No.6- Intimo

In the 6th etude, the composer focused on the division into 2 and 3 with a romantic perception, accompanied by pedals (Figure 10). A distinct practice was not done in terms of tonality, and a ballad-like piece was composed

Figure 10. "Etudes for the Intermediate Pianist", 5th Etude, Measures 4-9 (Manookian, 2011).

Figure 11. "Etudes for the Intermediate Pianist", 6th Etude, Measures 19-24 (Manookian, 2011).

in a post-romantic language. What the composer wants to practice is the case of dividing the other hand into two in a 6/8 measure divided by 3. However, it is striking that some impressionist harmonic colors also emerged at this point. Playing the 6/8 meter by dividing it into two stands out as a structure that the early 20th century composers especially liked to use, due to the contrast it created in the rhythmic context. For this reason, the composer wanted to practice this structure.

Etude No.7- Agitato

When the 7th etude is examined, it is seen that the composer focused on playing the intervals of the two hands one after the other at a fast tempo (Figure 11). This form of performance can sometimes consist of the repetition of the same sounds (1st measure), sometimes it consists of changes in the intermediate parts (2nd measure), and sometimes it manifests itself with a

Figure 12. "Etudes for the Intermediate Pianist", 7th Etude, Measures 1-11 (Manookian, 2011).

Figure 13. "Etudes for the Intermediate Pianist", 8th Etude, Measures 1-6 (Manookian, 2011).

melodic pursuit in the upper part (7th and 8th measures). Rather than any harmonic pursuit, this two-handed alternating playing technique, which is a method frequently encountered in the works of composers such as Bartok and Saygun in the 20th century, was practiced at a very fast tempo in the piece.

Etude No.8- Con delicatezza

The composer practices glissando in the 8th etude. In this etude, the distance between glissandos appears to be different (Figure 12). In 40 metronomes, it is necessary to perform these glissandos between structures, each at a different distance, in the right time. This shows the difficulty of the etude. The composer wanted to announce the fineness of the pianissimo playing with the help of the left pedal.

When the piece is listened to from the composer's own interpretation, it is striking that each glissando is played one beat after the beat in which it was written. However, the composer did not use any sign indicating this situation. When a pianist handles the piece, he will not be able to understand this expectation.

Etude No.9- Languido

In the 9th etude, the composer focused on the legato playing of the 3rd intervals, in which pedal support is provided (Figure 13). Written in an impressionistic tone, the flow of the chords is completely random. No logic is used, the search for color seems to be more dominant. This situation adds a kind of dynamism to the piece, as the sliding harmonies suddenly move to other unexpected harmonies, in line with the spirit of the piece.

Figure 14. "Etudes for the Intermediate Pianist", 9th Etude, Measures 1-6 (Manookian, 2011).

Figure 15. "Etudes for the Intermediate Pianist", 10th Etude, Measures 13-15 (Manookian, 2011).

Figure 16. "Etudes for the Intermediate Pianist", 10th Etude, Measures 22-24 (Manookian, 2011).

Etude No.10- Ben marcato

In the 10th etude, the composer focused on octave practices in the right and left hands. Each hand moves within itself mostly in intervals, although sometimes triple or larger intervals are seen (Figure 14). Although the piece is written in 4/4 scale, when listened or played, it is heard in 8/8 (3+3+2). Even if care is taken not to play like this in the performance, it is impossible to avoid it due to the writing and distance relations between the right and left hands.

In some places, various contrasts were created by

going beyond the 3+3+2, but then this rhythmic structure was returned (measures 22-23-24). In addition, when the whole etude is examined, a writing similar to Bela Bartok's piano writing, which is defined as primitivist, is encountered (Figure 15).

Etude No.11- Abbandonato assai

The composer focused on the grace note in the 11th etude and practiced the lower grace note, upper grace note, 2nd interval grace note on the chord (Figure 16).

The musical score for Figure 17 consists of two systems of music. The first system shows measures 13-15. The right hand has a melody with grace notes and a 5-finger fingering. The left hand has a bass line with chords. Dynamics include 'rit.' and 'a tempo'. The second system shows measures 16-18. The right hand has a melody with grace notes and a 5-finger fingering. The left hand has a bass line with chords. Dynamics include 'mp'. Fingerings are indicated with numbers 1-5.

Figure 17. "Etudes for the Intermediate Pianist", 11th Etude, Measures 13-18 (Manookian, 2011).

The musical score for Figure 18 is for the 12th Etude, titled 'Robusto' with a tempo of quarter note = 176. It is in 4/4 time. The right hand has a melody with grace notes and a 5-finger fingering. The left hand has a bass line with chords. Dynamics include 'sfz' and 'ff'.

Figure 18. "Etudes for the Intermediate Pianist", 12th Etude, Measures 1-3 (Manookian, 2011).

All 2nd grace note on both the 2nd interval and the chord, except for one (12th measure), consist of the major 2nd interval. In order to create a contrast to the congestion created by the grace note, the composer included repetitions of sounds that can be considered close to rubato, while the chord or two sounds are longer after the grace note. These sound repetitions in the whole piece left their place to above-chord arpeggios in the 10-12 and 16th measures. The composer wanted the etude to be played with pedals a lot.

Etude No.12- Robusto

Looking at the 12th etude, it is seen that chords in root position played one after the other in the right and left

hands are practiced (Figure 17). The relations of the chords with each other are based on the 2nd interval or the 3rd interval. This is because all chords are expected to be played with fingers 5-3-1. This expectation does not allow larger leaps at this pace. All consecutive chords consisting of eight notes move with a double leap, and most chords starting with a quarter or dotted quarter move with a triple leap. In addition, this etude is actually played with the wrist, not with the fingers; thus, it actually works the wrist. From a perspective, it can be considered as a wrist repetition, even if it is not on the same sound.

Since the etude is in a fast tempo, the possibility of the performer's getting tired was considered, and an intermediate section consisting of wider sounds and repetitions of the same chords was written instead of consecutive ones (Figure 18). The Bela Bartok effects

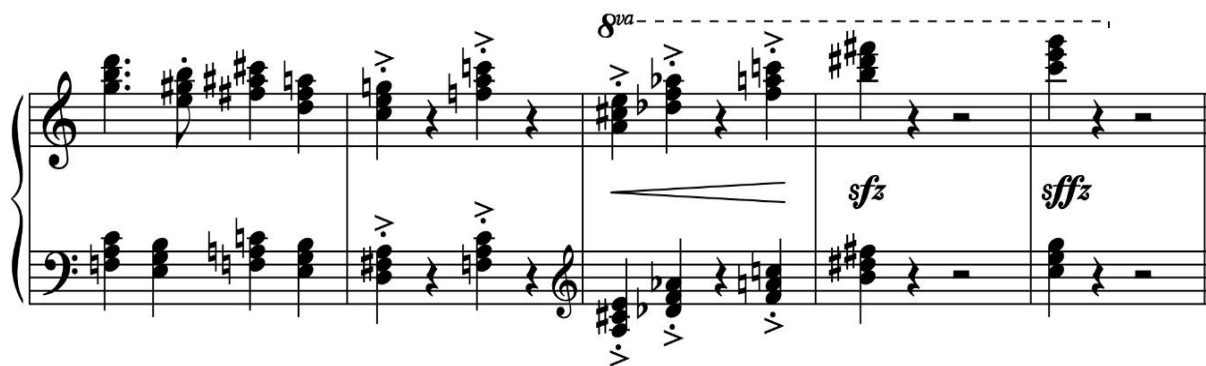


Figure 19. "Etudes for the Intermediate Pianist", 12th Etude, Measures 31-35 (Manookian, 2011).

encountered in some of the previous etudes are also striking here. It is thought that the composer designed a grandioso ending to the whole album, both in terms of difficulty, tempo and feeling, with this etude.

CONCLUSION

In the present study, Jeff Manookian's "Etudes for the Intermediate Pianist" method, which consists of 12 etudes, was examined by considering the characteristics and differences of the etudes, and the elements that the composer aimed to use in the etudes were stated (Figure 19).

One of the most important and primary steps to raise awareness in piano students is the analysis of the piece. In the next step, the student should identify his own technical and musical deficiencies and determine which piece he needs to practice (Ahmetoğlu, 2020). Including analysis in piano education is important in terms of the possibility of positively affecting success. Therefore, revealing the general and detailed characteristics of an etude by analyzing it will positively affect the attitude and study plan of the individual. For this reason, analyzing the different characteristics of the etudes studied during the piano education process and making inferences will directly contribute to the success of the students (Kurtuldu, 2009).

It is thought that the etudes included in Jeff Manookian's method titled Etudes for the Intermediate Pianist, composed for intermediate piano education, will be of great benefit in helping both technical and musical development. Debussy's influence is on the titles of these etudes written by the composer in 1993 (Hinson, 2000). The composer indicated how each piece should be played, with small titles he wrote at the beginning of the pieces.

It is seen that each etude in the method was written in order to develop a different technique, and there are practices that will enable to overcome a different technical

difficulty in each etude. Alper (2021), in his study examining Loeschorn op.65 etudes in terms of musical expression in piano education, revealed that Loeschorn etudes also have the same purpose. This situation is in parallel with the result of the current research.

It was concluded that the following techniques were used in order in Manookian studies:

- Etude 1: For the five fingers
- Etude 2: For wide arpeggios
- Etude 3: For chromatics
- Etude 4: For scales
- Etude 5: For repeated notes
- Etude 6: For two against three
- Etude 7: For alternating hands
- Etude 8: For glissandos
- Etude 9: For thirds
- Etude 10: For octaves
- Etude 11: For grace notes
- Etude 12: For chords

Incorporating nuances for musical expression in the etudes and emphasizing musical terms such as "lirico", "cantabile", "dolce", "martellato", and "grandioso" also enhance the composer's musicality. It results in an approach that aims to care and increase the musicality. Alper (2021), in his study, revealed that when compared to composers such as Czerny, Cramer, Duvernoy and Bertini, Loeschorn, etudes composed for beginner and intermediate piano education literature are those that give more importance to musical expression. This result is similar to the result of the present research.

In the study, it was also concluded that Manookian etudes are supportive etudes for improving pedal use and performance.

Ekinci (2004), in his study in which he examined the method problem related to piano education, determined that music teacher candidates greatly needed a technical practice method suitable for their level. It is thought that Manookian's etudes for intermediate pianists can be used

as an alternative source in piano education.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

REFERENCES

- Ahmetoğlu F (2020). Carl Czerny op. 299 piyano etütlerinin analizi, (Unpublished Master Thesis), Eskişehir, Anadolu Üniversitesi.
- Alper A (2021). A resource recommendation for improving musical expression and narration in piano education: An examination of loeschhorn op. 65 etudes. *Educational Research and Reviews* 16(5):189-201. <https://doi.org/10.5897/ERR2021.4149>
- Bilir E (2016). F. Chopin'in Op.10 no.2 Kromatik Etüdünün Piyano Tekniğine Etkileri (Unpublished Masters thesis). Anadolu Üniversitesi Güzel Sanatlar Enstitüsü, Eskişehir.
- Ekinci H (2004). Müzik öğretmeni adaylarının piyano eğitimine ilişkin düzeye uygun teknik alıştırmaya metodu sorunu. 1924-2004 musiki muallim mektebinden günümüze müzik öğretmeni yetiştirme sempozyumu 7-10.
- Engül DD, Pirgon Y (2020). Ludvig Schytte Op. 108 Kleine Piyano Etüt Kitabının Hedef Davranışlar Açısından İncelenmesi. *Sanat Eğitimi Dergisi* 8(1):12-21.
- Ferguson HKL, Hamilton (2005). Study. Oxford University Press.
- Hinson M (2000). Guide to the pianist's repertoire (Üçüncü Baskı). Indiana University Press.
- Kalkanoğlu B (2020). Piyano eğitiminde sol el: C. Czerny op. 718 sol el etütlerinin analizi. *Turkish Studies* 15(3). doi:10.29228/TurkishStudies.42789.
- Karasar N (2008). Bilimsel araştırma yöntemi (17.Baskı). Ankara: Nobel Yayın Dağıtım.
- Kasap TB (2004). Müzik öğretmeni yetiştiren kurumlardaki yardımcı çalgı piyano dersleri üzerine bir araştırma, 1924-2004 Musiki Muallim Mektebinden Günümüze Müzik Öğretmeni Yetiştirme Sempozyumu, Süleyman Demirel Üniversitesi, Isparta.
- Kurtuldu M (2009). Czerny Op. 299 30 numaralı etüde yönelik teknik ve biçimsel analiz, Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (1):28-38.
- Kutluk Ö (2001). Türkiye'deki müzik öğretmeni yetiştiren kurumlarda piyano eğitimi, (Unpublished doctoral thesis), Ankara: Gazi Üniversitesi.
- Manookian J (2011) Etudes for the young pianists, Windsor Editions. Available at: [https://imslp.org/wiki/Etudes_for_the_Intermediate_Pianist_\(Manookian%2C_Jeff\)](https://imslp.org/wiki/Etudes_for_the_Intermediate_Pianist_(Manookian%2C_Jeff)).
- MOA (2021). Jeff Manookian, Available at: <http://musicofarmenia.com/jeffmanookian>.
- OĞAN FD, ALBUZ A (2013). Carl czerny op in piano teaching. 599 and jean-baptist duvernoy op. 176 effects of etues in the methods of the classic period sonatine performance. *Turkish Journal of Social Research* 19(1):397-426.
- Öztürk B (2007). Carl Czerny'nin opus 299/19 numaralı etüdünün piyano eğitimine yönelik analizi, GÜ, Gazi Eğitim Fakültesi Dergisi 27(2):241-258.
- Pamir L (Tarihsiz). Çağdaş Piyano Eğitimi. İstanbul: Beyaz Köşk Yayınları.
- Poyrazoğlu E (2007). Carl Czerny'nin Yaşamı ve il primo maestro di pianoforte etütlerinin incelenmesi, (Unpublished master thesis), Eskişehir: Anadolu Üniversitesi.
- Sezen H (2021). Czerny'nin op.849, 30 etudes de mécanisme kitabının çalım teknikleri ve kazanımları açısından incelenmesi". *İdil Dergisi* 10(77):18-30. doi:10.7816/idil-10-77 02
- Toptaş B, Çeşit C (2014). Carl Czerny op.599 etüt kitabında sol el eşlik yapılarının incelenmesi. *E-Journal of New World Sciences Academy* 9(2):66-83. <http://dx.doi.org/10.12739/NWSA.2014.9.2.D0149>
- Tufan E (2004). Geleneksel Makamlar Kullanılarak Yazılan Etütlerin Piyano Eğitimi Açısından Önemi. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi* 24(2):65-77.
- Umuzdaş MS (2012). Carl Czerny opus 299 34 numaralı etüdün teknik ve armonik analizi. *International Journal of Human Sciences [Online]* 9(2):1569-1580.
- Yıldırım A, Şimşek H (2008) Sosyal bilimlerde nitel araştırma yöntemleri (6. Baskı) Ankara: Seçkin Yayıncılık.
- Yılmaz ÖB (2018). F. Chopin op. 10, 12 no'lu "ihtilal" etüdünün piyano tekniği yönünden incelenmesi ve piyano eğitiminde ileri düzey piyanistlik becerilerine olan katkıları (Unpublished master thesis). Uludağ Üniversitesi Eğitim Bilimleri Enstitüsü.

Related Journals:

