

Research Article

Noor Darwish, Ahmad S. Haider, Hadeel Saed*

Aspects of Visual Content Covered in the Audio Description of Arabic Series: A Corpus-assisted Study

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Abstract: People with visual impairment need a special form of audio-visual translation (AVT) to have access to multimedia products such as series and movies. Audio description (AD) is an AVT mode that describes what is happening in the images through words. It is a necessary accessibility tool that allows the blind and visually impaired to visualize scenes through spoken material. This study examines the types of information covered in the AD of the Jordanian Netflix drama series ‘*Madrast Al-Rawabi LilBanat*’ (*AlRawabi School for Girls*) following a corpus-assisted approach. Subsequent to watching the series and transcribing the verbal AD content, the researchers conducted frequency and concordance (KWIC) analyses using the Wordsmith 6 (WS6) software package to identify the categories of information covered in the AD. The findings showed six categories, namely description of characters, description of actions, interpersonal interactions, description of settings, emotional states, and on-screen texts. This study recommends conducting further research on AD in the Arab world to expand the accessibility services provided by official TV channels and streaming platforms.

Keywords: accessibility, visual impairment, audio-visual translation, audio description, Arabic series, corpus linguistics

Introduction

Globalization has affected translation to a large extent and paved the way for audio-visual translation (AVT). AVT is concerned with the translation in audio and/or visual settings, such as cinema, television, video games, and some live events, including opera performances (Díaz-Cintas and Remael). AVT modes include dubbing (Haider and Alrousan; Hayes; Silwadi and Almahasees), subtitling (Al-Zgoul and Al-Salman; Debbas and Haider; Haider et al.), voiceover (Díaz-Cintas and Orero), and audio description (AD) (Fryer), to mention a few.

AD, which is the focus of this study, is an AVT mode that explains what is happening in an image through words. This mode is sometimes utilized in movies, theatres, exhibitions, museums, and churches, among others. Moreover, some new mobile applications such as “Greta” provide people with ADs (Hättich and Schweizer). The “Greta” app enables the audience to experience fully accessible cinema by playing the existing AD at any time and place by using users’ smart devices. In other words, AD enables receivers to listen to the audio-described material and become familiarized with what happens on the screen as a part of social life engagement.

* **Corresponding author: Hadeel Saed**, Department of English Language and Translation, Applied Science Private University, Amman, Jordan; MEU Research Unit, Middle East University, Amman, Jordan, e-mail: h_alsaed@asu.edu.jo

Noor Darwish: Department of English Language and Translation, Applied Science Private University, Amman, Jordan

Ahmad S. Haider: Department of English Language and Translation, Applied Science Private University, Amman, Jordan; MEU Research Unit, Middle East University, Amman, Jordan

AD, also called video or visual description, is a relatively new concept worldwide that has attracted significant scholarly attention (Karantzi; UtRay *et al.*). Some streaming platforms, such as Netflix, provide AD service to their subscribers to support those who are visually impaired and have difficulty following on-screen actions. AD is considered an accessibility practice that provides an optional service primarily intended for the blind and visually impaired people (B/VIP). Accordingly, audio describers should be skilled to let the target audience, mainly B/VIP, enjoy the cinematic experience. In short, AD could be less effective if it does not follow a comprehensible systematic approach.

To the best of the researchers' knowledge, few researchers have explored AD of Arabic movies and series (see Alnatsheh). This study qualitatively examines Season 1 of one of the most controversial six-episode Jordanian series, "*AlRawabi School for Girls*," produced by Netflix using a corpus-assisted approach, i.e., combining the use of relatively large collections of authentic language data (corpora) with other analytical tools to investigate and understand language phenomena and make informed analyses and interpretations. To the best of the researchers' knowledge, only a few studies have been carried out using corpus-assisted methods on Arabic AD. Accordingly, using corpus techniques such as frequency, cluster, concordance, collocation, and keyword to investigate a corpus of AD is the gap that this study fills.

Ultimately, this study aims to examine the differences between the original version of the Jordanian Netflix drama series '*Madrast Al-Rawabi LilBanat*' (*AlRawabi School for Girls*) and the version with AD by comparing the included information and expressions. Thus, the current study addresses the following question:

What aspects of visual content are covered in the audio-described version of *AlRawabi School for Girls* series?

Review of Related Literature

This section reviews the theoretical background of the current study by discussing the different AVT modes with a special focus on AD. It also reviews several empirical studies relevant to AD.

AD as a Mode of AVT

Translation is an essential field of study that deals with different genres and modes. It is an activity that transfers the meaning and style from the source text into the target text. According to Newmark (88), translation is "rendering the meaning of a text into another language in the way that the author intended the text." The three types of translation are intralingual, interlingual, and inter-semiotic. Intralingual translation renders texts within the same language (Al-Abbas and Haider; Al-Abbas *et al.*). In interlingual translations, texts are made understandable for audiences unfamiliar with the original language (Al-Zgoul and Al-Salman; Aldualimi and Almahasees). Jakobson states that interlingual translation or "translation proper" converts verbal signs in one language to the verbal cues of another language. The third type is inter-semiotic, in which the verbal signs are interpreted using signs of a nonverbal sign system (Torop).

Due to the widespread use of Arabic in the Middle East and North Africa and the significance of Arabic as the language of the Holy Quran, Arabic-English translation and vice versa is a crucial area of study. Literary translation, scientific and technical translation, legal translation, and commercial translation are a few examples of the numerous kinds of translation between Arabic and English. For the translation to be successful, it requires a deep understanding of both languages and their cultural nuances. It is crucial for translators to be knowledgeable about tools and software used for translation, as well as staying current with the most recent advancements in the industry.

Due to the spread of audio-visual products, such as movies, television shows, series, video games, and advertisements and commercials, there has been an increasing demand to translate and localize them into different languages. This gives rise to a new field in translation studies, namely AVT, which has different modes, including AD (Haider and Hussein; Haider *et al.*; Samha *et al.*). Mazur (228) defines AD as "audio

commentary that describes the relevant visual elements of work (as well as meaningful sounds that may not be clear to the target audience) so that the work constitutes a coherent whole for the audience.” AVT mode is popular in the United States, Japan, and several European countries, gaining recent popularity in the Middle East. Hyks pointed out that translation and AD are two thoroughly related activities. It could be said that the role of AD is turning visual information into verbal information, which helps people who are blind or have impaired vision understand movies and other audio-visual displays better.

The origins of AD can be traced back to 1981 in the United States, when Margaret and Cody Pfanstiehl, the founders of the Metropolitan Washington Ear, began providing listening services for the blind, visually impaired, and physically disabled people who could not read print properly in an effort to promote inclusivity (Snyder). The Pfanstiehls collaborated with Arena Stage for American Theatre to launch an AD of Major Barbara’s English Play. As AD began to be more widely adopted by various platforms and industries, improving differently abled people’s lives became a normal part of inclusion strategies. Previously, people with visual impairment relied heavily on their able-sighted friends to whisper comments to them about what was being performed on the theatre stage. This makes it clear that AD has impacted lives throughout history. AD could additionally be used for pedagogical purposes and requirements, as it raises awareness about disability and could further develop critical thinking skills in classrooms through a guided description of visual material (Kleege and Wallin; Schmeidler and Kirchner).

The purpose of AD in filmed programs and performances, such as movies, television programs, theatre, opera, dance performances, or football matches, is to convert the main visual aspects of a performance into an informative verbal description that explains the program or event. This is related to one of AD’s most essential goals, which is enabling blind and partially sighted viewers to enjoy audio-visual products.

AD can be controversial when applied to audio-visual products like movies and series because these products can be audio-described in many ways. Overall, audio-visual products have a far-reaching influence, so every aspect is carefully considered in the pre-production, production, and post-production stages. According to Piety, the first academic record of AD is found in a dissertation written in 1975 by Frazier, in which the author discusses AD as a way to enhance blind listeners’ comprehension.

Empirical Studies

This section reviews several studies that discuss AD services and how people with vision impairments reacted to them. Fels et al. compare the reactions of sighted and blind users to first-person-described video information and conventional (third-person) descriptions in relation to the animated Canadian sitcom *Odd Job Jack*. The research participants watched 10 min of four video clips, and the findings showed that all of the blind participants commended the video description, preferring the first-person style to the conventional one.

In the same vein, Arma adopts a corpus-assisted approach to syntactically and lexically analyze Italian and English audio-described scripts of the movie *Chocolat*. Using quantitative and qualitative methods to analyze the texts using AntConc software provides reliable results for corpus-driven text analysis. Examples of sentence structure, relevance, and objectivity are retrieved manually. The results show that the Italian script contains a higher number of secondary clauses when compared to English. Arma recommends further research on the hearing habits of the visually impaired community to determine the audience’s satisfaction with different approaches to AD.

Similarly, Vermeulen and Ibáñez Moreno examine AD as a tool for intercultural competence (ICC) by emphasizing AD as a culture-based translating activity and implementing it in foreign language classes. The study participants included 153 Belgian 3-year university students studying languages. The participants explored the benefits of using AD in the foreign language classroom, which promoted ICC. The study found that AD proves to be a helpful pedagogical tool to raise intercultural awareness, creating a link between “what we see” and “how we describe what we see.”

Walczak explores the impact of Polish AD on the immersion of the B/VIP consumers of this service. Two studies are conducted focusing on AD style and AD vocal delivery. The first research studied the standard and creative AD styles used by blind and visually impaired users. The second study, linked to AD vocal delivery,

studied the reception of two AD voice types – human and synthetic, by the blind and visually impaired users for documentary and fiction movie genres. A questionnaire targeting a total of 72 participants was used to measure their engagement when exposed to different media. The results show that creative AD prompted significantly higher levels of presence for all participants than standard AD, and AD vocal delivery favored AD narrated by a human about a fictional story. On the other hand, presence rates for documentary clips were similar, with no statistically noteworthy differences in AD voice type: human and synthetic, which validate the hypotheses.

Likewise, Alnatsheh questions whether Arabic movies could have dialectal audio descriptions (DADs). The study includes quantitative and qualitative approaches, investigating the target audience's preferences and determining if Qatari DAD can create an immersive environment. Two AD versions of the short Qatari movie *Sh'hab* are provided: one in modern standard Arabic (MSA) and the other in the Qatari dialect. The results show that the participants preferred MSA, which they found to be more eloquent, easy to follow, and described the actions in the scene more accurately.

Zengin Temirbek uulu *et al.* qualitatively examine the visually impaired and sighted participants' comprehension of two versions of the same film, one with and one without supporting AD. This recent Turkish research aims to determine the extent to which AD contributes to visually impaired individuals' comprehension of a film. When the movie is aided with AD, visually challenged participants are able to comprehend and describe the events similarly to sighted participants. These findings highlight the significance of AD assistance and its impact as a vital resource for transforming visual information into verbal information, which considerably enhances movie comprehension for the visually impaired. The study recommends AD producers to provide better support for the visually challenged.

In the context of the Persian language, Khoshsaligheh *et al.* focus on the quality of the Persian language AD by qualitatively analyzing three audio-described feature films produced in Iran in 2019. Intralingual AD is produced by an Iranian non-governmental organization called Sevina. The researchers' goal is to determine whether the sampled AD transcripts provide a systematic approach based on Audio Description: Lifelong Access for the Blind project guidelines. The findings show a fairly consistent approach, even though there is room for improvement in future studies.

This study analyzes the AD of the Arabic series *AlRawabi School for Girls*. This might provide audio describers with further suggestions that help improve the quality of Arabic AD. In summary, the studies reviewed in this section discussed AD in several languages; however, there is limited discussion about this phenomenon in Arabic audio-visual products, a gap that this study attempts to fill.

Methodology

This section discusses the study method. The researchers qualitatively analyze the AD of “*AlRawabi School for Girls*” series according to six main categories. The chosen series ‘*Madrast Al-Rawabi LilBanat*’ is the second original Jordanian Netflix after *Jinn. Jinn*, which is the first Arabic supernatural drama, was premiered on June 2019 and was directed by Mir-Jean Bou Chaaya and Amin Matalqa. The story illustrates *Jinn* (literally meaning ghost) in the city of Petra (one of the Seven Wonders of the World), located in Jordan. Netflix is a well-known digital streaming service platform that provides optional AD services to its subscribers for many series and movies in different languages. The researchers watched all six episodes and transcribed the AD scripts manually. Then, the ADs were classified into six thematic categories, building upon the model of Salway. These categories are description of characters, description of actions, interpersonal interactions, description of settings, emotional states, and on-screen texts.

Why *AlRawabi School for Girls*?

AlRawabi School for Girls is an Arabic six-part TV drama mini-series that premiered on August 2021. It sheds light on social and cultural topics infrequently discussed through Arabic-language entertainment, focusing on

the topic of bullying young women. It rates 7.4/10 on IMDb, a well-known online information database related to streaming audio-visual content. Also, the maturity rating for the series is +16. The main characters include a cast of six girls named: Mariam, Noaf, Layan, Dina, Rania, and Ruqayya.

The *AlRawabi School for Girls* series is written by two young female Jordanians, Tima Shomali and Shirin Kamal, and produced by Filmizion Productions (on behalf of Netflix). Tima Shomali is the founder of Filmizion Production and is also a director and comedy actress, while Shirin Kamal serves as the Creative Music Supervisor of the series. *AlRawabi School for Girls* is a controversial Jordanian series because it openly portrays topics that are not openly discussed. Some described the series as featuring “uncomfortable” content and projecting a “false image” of Jordanian society (see Misra). On the contrary, others have praised the show for portraying young teenage Arab girls.

The female-centric teen series crucially discusses hot topics in Arab societies, such as bullying, women’s rights, psychology, religion, revenge, and toxic relationships, to mention a few. Surprisingly, it is subtitled in 32 languages, including English, Spanish, Italian, French, German, and Turkish, and dubbed in more than nine languages. It is also available in 190 countries.

Data Collection and Corpus Compilation

A corpus of AD of *AlRawabi School for Girls* series was compiled to be further analyzed by the researchers. After watching the six-episode series on Netflix, each lasting about 45 min, the researchers wrote down the full audio-described version of the series manually on an Excel sheet. The AD is mainly in MSA, although the series is produced in Jordanian vernacular. Since the Netflix material is protected and is not subject to any free or open license, it is important to note that the researchers contacted the streaming platform and were informed that Netflix allows for the use of its subtitles for educational purposes, which include facilitating learning, promoting knowledge acquisition, and supporting educational goals within formal or informal educational settings and contexts.

Figure 1 shows the available options for Netflix subscribers when watching *AlRawabi School for Girls*. These include audio and subtitles options. In the former, subscribers can select Arabic (original), i.e., in Jordanian Vernacular or AD. They can also watch a dubbed version in British English. The subtitled versions are intralingual (Arabic) and interlingual (including English).

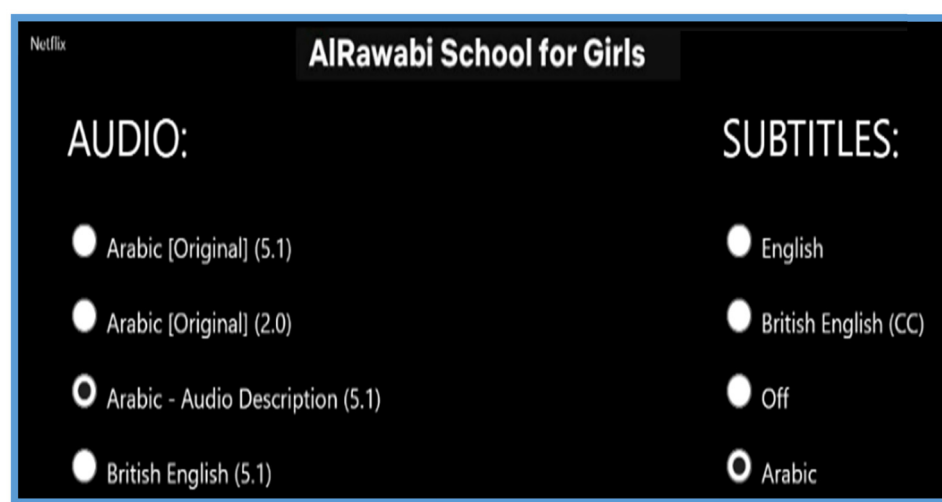


Figure 1: Available audio and subtitles on Netflix for *AlRawabi School for Girls*.

Figure 2 shows an intralingual subtitling of the series, where the actress's words appear at the bottom of the screen and read as “هلا، المدرسة صارت كابوسي” (Lit. *the school is now my nightmare*).

Figure 3 includes the MSA intralingual subtitles of *AlRawabi School for Girls* extracted from Netflix (the text in black). It also includes the AD (the text in red).

Corpus Linguistics (CL)

There are different CL techniques. These include frequency, clusters, concordance, collocation, and keywords (Baker; McEnery and Wilson). In this study, two techniques are used: frequency and concordance. Frequency shows a list of all words in the corpus, and concordance investigates words in context. In this study, WordSmith 6 (WS6) (Scott), a CL software package, is used to generate word lists and concordance analysis.

Frequency analysis enables researchers to identify the most frequent words in a corpus and compare the list with other frequent words in several multilingual and monolingual corpora (Haider). In this study, the researchers conduct frequency analysis and investigate the data accordingly. Figure 4 shows a screenshot of frequency analysis using WS6.

Concordance shows all the hits of a search term in context. In this article, the researchers generate concordance lines for some particular words and divide them into thematic categories. Figure 5 shows a screenshot of concordance analysis.

Research Procedure

After selecting and watching the *AlRawabi School for Girls* Arabic series, the AD script from Netflix was transcribed by manually writing it down. After that, the original Netflix MSA intralingual subtitles of the series were extracted directly from Netflix. Subsequently, the collected data from all six episodes were



Figure 2: A screenshot from “*AlRawabi School for Girls*” series with Netflix Arabic subtitles.

A	
1	Arabic Subtitles+AD
2	الحرف N الأحمر يتحول لعدة ألوان
3	شاشة سوداء تظهر عليها كلمة مسلسلات Netflix الأصلية إنتاج فيلمزيون (Filmizion)
4	فتاة ترتدي حذاء رياضيا تمشي بال slowmotion في طريق تحيطه الأشجار
5	لطالما كانت المدرسة مكاني المفضل.
6	تظهر الفتاة بملابس وحقيقية المدرسة
7	كنت أحب ارتياد المدرسة كثيرا.
8	تمسك هاتفها المحمول. لا يزال وجهها غامضا.
9	تدفعها فتاة من الخلف.
10	يظهر وجه مريم التي ترمي الحقيبة وتتجه للفتاة ثم تقع أرضا.
11	كانت لدي صديقات كثيرات.
12	نقوم إحدى الفتيات بضربها
13	يرتطم وجه مريم بالأرض في عنف
14	وكانت الحياة جميلة.
15	شاشة سوداء يظهر بعدها وجه مريم المضرج بالدماء وهي فاقدة الوعي
16	ماذا فعلتما؟
17	فتاة تركض طالبة النجدة

Figure 3: A screenshot of the MSA intralingual subtitles and AD of *AlRawabi School for Girls*.

N	Word	English	Freq
1	مريم	Mariam	193
2	ليان	Layan	143
3	في	In	141
4	نوف	Nouf	136
5	من	From	102
6	دينا	Dina	97
7	على	On	83
8	تنتظر	Looks	80
9	رقية	Ruqayya	67
10	الفتيات	The girls	64

Figure 4: Screenshot of frequency analysis on WS6.

converted into plain text files (.txt) to be processed and read by WS6 CL software package. After processing the data using WS6, the AD and MSA intralingual subtitles of the series were compared and contrasted. Later on, the Ads were classified thematically based on the type of information they covered. Finally, the AD parts that involve code-switching between Arabic and English were explored.

N	Concordance
1	تجلس على الكرسي .
2	تجلس على كرسي الحمام .
3	تجلس على طاولة بمفردها .
4	دينا تقفز بفرح بينما تجلس مريم .
5	تجلس دينا على مقعد تحت شجرة وحيدة وتبكي .
6	تجلس رقية وتراسله .
7	تجلس رانيا بيأس وتدفع أحد الكراسي بغضب .
8	تقف مريم أمام دينا ثم تجلس بجانبها .
9	فاتن تجلس بفخر .

Figure 5: Screenshot of concordance on WS6.

Analysis and Findings

This section is divided into three main parts, namely, a comparison between AD and the series' original dialogue; an analysis of the most frequent words in the corpus; and a thematic categorization for the type of information covered in the AD.

Comparing AD to MSA Subtitle Corpora

Tokens, types, and type/token ratio (TTR) (Chotlos; Templin) are important, especially when comparing corpora. For example, AD and MSA intralingual subtitle corpora are illustrated in this study. These statistics reveal information about the features of the texts examined, whether the corpora are monolingual or multilingual.

The researchers used the wordlist tool in WS6 to generate corpus statistics for the six episodes as one unit and each episode separately. Table 1 shows the tokens, types, and TTR in the investigated AD corpus.

Token refers to the actual number of words in the corpus (running words), while type refers to the unique words in the corpus. Figure 1 shows that the second (768 words), fourth (677 words), and fifth (886 words) episodes include fewer words than the first, third, and sixth episodes with 1,005, 1,142, and 1,056 words, respectively. This might be because the important events contributing to the series' plot occurred in these episodes, and this is why they are described more thoroughly to the target audience. This could also be attributed to the availability of portions, often referred to as "gaps" or "pauses," between dialogues or scenes.

The Arabic language has several varieties, including Classical Arabic (CA), MSA, and Dialectal Arabic (DA) (Ferguson). MSA is the simplified form of CA and is considered the *lingua franca* of the Arab World (McCarus). Netflix provides MSA subtitles for most Arabic vernacular movies or series. The main reason behind using the corpus of the MSA subtitles of the series is to compare the frequencies of some words in the two versions, i.e., the AD and source script. Table 2 shows the size of the MSA subtitles for *AlRawabi School for Girls*. As the researchers stated before, the series is produced in Jordanian vernacular, but the researchers could not transcribe it due to time constraints, and this is why the intralingual MSA corpus is used.

Figure 5 shows that the actual size of the MSA intralingual subtitle corpus is 15,448 words, with 4,947 distinct words (types). The ratio of types to tokens is 32.06.

Table 3 summarizes the results of Tables 1 and 2.

Table 1: Size and statistics of AD corpus using WS6

N	Text file	Tokens (running words)	Types (distinct words)	TTR
1	Overall	5,534	1,867	33.74
2	Episode 1 .txt	1,005	547	54.43
3	Episode 2 .txt	768	380	49.48
4	Episode 3 .txt	1,142	597	52.28
5	Episode 4 .txt	677	335	49.48
6	Episode 5 .txt	886	442	49.89
7	Episode 6 .txt	1,056	576	54.55

Table 2: Size and statistics of the MSA intralingual subtitles corpus using WS6

N	Text file	Tokens (running words)	Types (distinct words)	TTR
1	Overall	15,431	4,947	32.06
2	Episode 1 MSA .txt	2,655	1,327	49.98
3	Episode 2 MSA .txt	2,757	1,390	50.42
4	Episode 3 MSA .txt	2,350	1,158	49.28
5	Episode 4 MSA .txt	2,645	1,293	48.88
6	Episode 5 MSA .txt	2,672	1,216	45.51
7	Episode 6 MSA .txt	2,352	1,184	50.34

Table 3 shows that the number of words in the subtitle corpus is larger than that of AD. This is expected because ADs are mainly added between dialogues or scenes. Such a variation is likely due to spatial and temporal constraints. AD phrases are inserted between the characters' conversations, which is the silent part of the audio-visual scenes. This is why audio describers use phrases that deliver the message in the shortest possible way. The audio describers need to infer what the essential parts of a scene are and convey these to the blind or visually impaired audience.

Table 3 also shows that types are more common in the MSA intralingual subtitle corpus than they are in the AD corpus. The variety of the text's vocabulary is more visible in the AD corpus (33.74) when compared to the MSA subtitles (32.06). This means that more content words are used in the AD version instead of the MSA corpus. The grammatical (function) words are used more in the MSA intralingual subtitles because there is enough space for the subtitlers to write complete sentences compared to the audio-describers. According to Al-Khalafat and Haider (136), "Type/token ratio indicates the variety of the text's vocabulary; i.e., the highest the TTR, the more varied the text's vocabulary."

Frequency Analysis

The two main CL techniques used in this study are frequency and concordance. The researchers first used WS6 to generate a list of all words in the corpus with their frequencies. Table 4 shows the most frequent 20 words in the corpus.

Table 3: Comparing the size of MSA intralingual subtitles with AD

Statistics	MSA subtitles	AD
Tokens	15,431	5,534
Types	4,947	1,867
TTR	32.06	33.74

Table 4: The 20 most frequent words in the corpus

No.	Arabic word	English transliteration	English translation	Frequency
1	مريم	maʿryam	Mariam	193
2	ليان	liān	Layan	143
3	في	fī	In	141
4	نوف	nūf	Nouf	136
5	من	miñ	From	102
6	دينا	dīna	Dina	97
7	على	ʿala	On	83
8	تنظر	tañzur	Looks	80
9	رقية	ruqīā	Ruqayya	67
10	الفتيات	alʿfatīāṭ	The girls	64
11	المدرسة	alʿmadrasa	The school	60
12	رانيا	rāniā	Rania	55
13	عبير	ʿabīr	Abeer	46
14	بينما	baynamā	While	45
15	مس	mi s	Miss	44
16	إلى	ʾilā	To	42
17	الحمام	alḥamām	The bathroom	38
18	تقترب	taqṭarib	Approaches	37
19	هاتفها	hātifahā	Her phone	37
20	تبتسم	tabtasim	Smiles	29

As Table 4 shows, the most frequent words in the corpus include content words (personal names) such as مريم *Mariam* (maʿryam) and ليان (liān) *Layan* and function words such as من (miñ) *from* and إلى (ʾilā) *to*. This study focuses on content words, so an Arabic stop list that includes some words such as من *from*, إلى *to*, and التي/الذي/الذين/اللواتي *who* is used to filter out function words. However, these words are sometimes distracting, especially when focusing on content words.

Similarly, to get accurate results and statistics, the researchers created a lemma list, which is a list of the headword with the derivatives, and used it to create a frequency list of the AD corpus under investigation, as shown in Table 5. Using the lemma list is important because Arabic is morphologically rich, as the same word may have different derivatives based on number (singular, dual, or plural), gender (feminine or masculine), and definiteness (indefinite or definite) (Haider). Additionally, prepositions and articles in Arabic are sometimes attached to words.

The researchers examined the frequency list and classified the most frequent words into thematic categories. As shown in Table 5, characters' names were the most frequent in the corpus, with مريم (maʿryam) *Mariam* being at the top of the list with 207 times. Table 5 also shows that some verbs were frequently used, such as تقترب (taqṭarib) *approaches* (50 times), تبتسم (tabtasim) *smiles* (40 times), and تدخل (tadkhul) *enters* (34 times), to mention a few. The next section discusses the categorization of the main types of information covered in the AD of *AlRawabi School for Girls* series.

Thematic Categorization

In this section, the researchers analyze the thematic categories derived from the most frequent content words in the AD corpus. In this part, the researchers use the CL technique of concordance (KWIC), which shows the node word or the search term in context. Concordance investigates a particular linguistic item in its context by considering the surrounding words that might range from one word to the left or right of that item to the whole text if needed. Table 6 shows how the first scene of the series is AD.

Table 6 shows the first scene of *AlRawabi School for Girls*, which is taken from the first episode entitled "School was my Happy Place." There are 18 utterances in total, 11 delivered by the audio describer and the

Table 5: The most frequent lemmatized 30 words in the corpus

N	Word	English translation	Freq.	Lemmas
1	مريم	Mariam	207	مريم[193] بمريم[2] لمريم[6] ومريم[6]
2	نوف	Nouf	170	نوف[136] بنوف[2] لنوف[9] ونوف[23]
3	ليان	Layan	167	ليان[143] لليان[4] وليان[20]
4	دينا	Dina	116	دينا[97] لدينا[3] ودينا[16]
5	تنظر	Looks	101	تنظر[80] تنتظران[2] فتنظر[1] وتنظر[4] ينظر[7] ينظران[1] ينظرون[6]
6	الفتيات	The girls	96	الفتيات[64] الفتاة[2] الفئتان[1] فتاة[11] فتيات[10] والفتيات[7] وفتيات[1]
7	رانيا	Rania	80	رانيا[55] برانيا[1] لرانيا[8] ورانيا[16]
8	رقية	Ruqayya	79	رقية[67] برقية[1] لرقية[6] ورقية[5]
9	المدرسة	The school	67	المدرسة[60] بالمدرسة[2] مدرسة[5]
10	مس	Teacher	54	مس[44] لمس[1] ومس[9]
11	تقترب	Approaches	50	تقترب[37] تقتربان[3] وتقترب[2] يقترب[8]
12	الحمام	The bathroom	46	الحمام[38] حمام[8]
13	عبير	Abeer	46	
14	تبتسم	Smiles	40	تبتسم[29] وتبتسم[8] وبتبسم[1] يبتسم[2]
15	تراقب	Observes	37	تراقب[21] تراقبان[1] تراقبها[1] تراقبه[1] تراقبهما[2] وتراقب[2] يراقب[1] تراقبها[8]
16	هاتفها	Her phone	37	
17	تخرج	Leaves	34	تخرج[23] تخرجان[1] وتخرج[8] ويخرجان[1] يخرجان[1]
18	تدخل	Enters	34	تدخل[27] تدخلان[1] وتدخل[3] يدخلان[2] يدخلون[1]
19	الباب	The door	32	الباب[25] باب[7]
20	ليث	Laith	31	ليث[21] بليث[4] لليث[1] وليث[5]
21	تتفقد	Checks	27	تتفقد[22] تتفقدان[1] وتتفقد[2] يتفقد[2]
22	صورة	Picture	27	صورة[19] الصور[3] الصورة[1] صور[4]
23	تتحرك	Moves	26	تتحرك[16] تتحركان[1] وتتحرك[7] وتحركان[1] يتحرك[1]
24	تجلس	Sits	26	تجلس[21] تجلسان[2] وتجلس[3]
25	تضع	Puts	26	تضع[22] وتضع[1] يضع[2] يضعان[1]
26	تمسك	Holds	26	تمسك[19] وتمسك[2] يمسك[5]
27	رسالة	Message	25	
28	نشير	Points	24	نشير[17] فتشير[2] ونشير[4] يشير[1]
29	تغادر	Leaves	23	تغادر[10] تغادران[2] وتغادر[8] يغادرون[1]
30	وسط	In between	21	

remaining 7 by the characters. In utterances 1 and 2, the audio describer concisely gives a detailed account of what is presented on the screen, even before the actual beginning of the series, where the Netflix logo is described. Such an outset can appear promising, as minor details are described from the very beginning. The number of utterances in the AD is higher than that of the script. This could be because the first scene, in specific, can create a good first impression for the visually impaired audience, who are the main target audience of AD. In the series, such detailed descriptions might also be challenging due to spatial and temporal constraints. Therefore, audio describers are always advised not to pay that much attention to the events that do not contribute much to the series plot. As for the dialogue, according to Netflix AD guidelines, sound effects, music, and intentional silence are necessary items and should be described.

Examining the frequency list of the AD corpus, six main thematic categories are found. These include *description of characters*, *description of actions*, *interpersonal interactions*, *description of settings*, *emotional states*, and *on-screen texts*. This categorization would be helpful for audio describers, AVT students, and trainers as it shows the type of information to be included in the AD. Table 7 shows the six main thematic categories, their sub-categories, and a short description of each theme.

The key information included in the ADs are names, locations, context, details, and descriptors. These aspects often answer the who, what, when, where, and how questions (Braun). The following subsections discuss in detail the categories outlined in Table 7.

Table 6: First scene of *AlRawabi School for Girls* series

No.		AD and the original script subtitles	English translation
1	AD	أحمر يتحول لعدة ألوان N الحرف ال	The red letter N transforms into different colors
2	AD	Netflix . شاشة سوداء تظهر عليها كلمة مسلسلات الاصلية إنتاج فيلمزيون	A black screen shows “Original Netflix Series” produced by Filmizion
3	AD	فتاة ترتدي حذاء رياضيا تمشي بال في طريق تحيطه الأشجار slow motion.	A girl wearing sports shoes walks in slow motion on a path surrounded by trees
4	Script	لطالما كانت المدرسة مكانني المفضل	The school has always been my favorite place
5	AD	تظهر الفتاة بملابس وحقيبة المدرسة	The girl shows up in the school's uniform and bag
6	Script	كنت أحب ارتياد المدرسة كثيرا	I used to love attending school so much
7	AD	تمسك هاتفها المحمول. لا يزال وجهها غامضا	She holds her phone. Her face remains mysterious
8	AD	تدفعها فتاة من الخلف	A girl pushes her from behind
9	AD	يظهر وجه مريم التي ترمي الحقيبة وتوجه للفتاة ثم تقع أرضا	Mariam's face appears, throwing the bag and moving toward the girl before falling down
10	Script	كانت لدي صديقات كثيرات	I had many friends
11	AD	تقوم إحدى الفتيات بضربها	One of the girls hit her
12	AD	يرتطم وجه مريم بالأرض في عنف	Mariam's face hit the floor violently
13	Script	وكانت الحياة جميلة	And life was beautiful
14	AD	شاشة سوداء يظهر بعدها وجه مريم المضرج بالدماء وهي فاقدة الوعي	A black screen is followed by Mariam's bloodied face while being unconscious
15	Script	ماذا فعلتما؟	What have you done?
16	AD	فتاة تركض طالبة النجدة	A girl runs, asking for help
17	Script	لنذهب من هنا قبل أن يلمحنا أحد	Let us leave before someone sees us!
18	Script	لكن ليس بعد اليوم	But not anymore

Description of Characters

In AD, when characters appear on the screen, they are introduced with a moderately simple description of their names, titles, and appearance. The sub-category of characters' names or proper nouns includes the most frequent words in the corpus. Regarding titles, some title words were frequent in the AD, such as *المعلمة teacher*, *المديرة principal*, and *الطالبة student*. Furthermore, the category of appearance includes several words related to *hair* and *clothing*.

The names of the main characters of *AlRawabi School for Girls* are the most frequent words in the AD corpus. However, the frequency of each character's name differs according to their role in the series. In the section “Comparing AD to MSA Subtitle Corpora,” the researchers compared and contrasted the size of the AD corpus with that of the MSA intralingual subtitles. Since names are frequent in the AD corpus, the researchers examined whether they were also frequent in the MSA subtitle corpus, as shown in Table 8.

Table 7: Thematic categories of the most frequent words

No.	Main thematic category	Sub-categories	Theme description
1	Description of characters	Names Titles Appearances	Personal names such as <i>Nouf</i> , <i>Mariam</i> , <i>Faten</i> , and <i>Laith</i> Titles and address forms such as <i>principal</i> , <i>teacher</i> , <i>driver</i> , <i>Mrs.</i> , and <i>Mr.</i> Physical features such as <i>skin color</i> , <i>clothing</i> , and <i>hair</i>
2	Description of actions	Dynamic-stative	Characters' movements and mental actions
3	Interpersonal interactions	—	Interaction between characters, such as <i>hug</i> , <i>kick</i> , <i>dance</i> , <i>touch</i> , and <i>beat</i>
4	Description of settings	Place-time	Describing location (adverbs of time and place)
5	Emotional states	—	Non-verbal gestures and feelings such as <i>gaze</i> , <i>look</i> , <i>watch</i> , <i>stare</i> , and <i>feel</i>
6	On-screen texts	—	Reading the on-screen texts and messages

Table 8: Frequency of characters' names in the two corpora

Character's name	English translation	AD	MSA intralingual
مريم	Mariam	207	121
نوف	Nouf	170	83
ليان	Layan	167	141
دينا	Dina	116	71
رانيا	Rania	80	49
رقية	Ruqayya	79	43
عبير	Abeer	46	34
ليث	Laith	31	19
فاتن	Faten	19	27

Table 8 shows that characters' names were more frequent in the AD corpus than they are in the MSA subtitle corpus. For example, *مريم* *Mariam* was mentioned 207 times in the AD corpus and only 121 times in the MSA subtitle corpus. This means that referring to the characters' names and what they are doing in the scenes is essential in AD. To ensure clarity, accessibility, and comprehension for people who rely on ADs, the names are repeated. Understanding the plot, context, and character interactions within a visual narrative depends heavily on proper nouns, such as names of people, locations, or significant objects. Repeating names or proper nouns helps the describer strengthen the link between the name and the matching visual aspect or character throughout the AD. Using the characters' names, especially the main and relevant supporting characters, is fundamental when describing the plots in audio-visual products, such as movies and series. Table 9 includes a concordance analysis for the character *مريم* *Mariam*.

The main character, *مريم* *Mariam*, was mentioned 207 times in the AD version, which indicates the compelling need to mention the names of characters to let the target audience, i.e., blind and visually impaired, understand and link the series' scenes with the events.

Addressing people with their titles is common and prevalent in the Arab World. In AD, when naming the characters for the first time, audio describers are advised to mention their titles to make the task of processing the information easier for the target audience. Table 10 shows some examples of the title 'مسن' *teacher*.

Since the main setting of the series is a school, it is expected to find several titles, especially when addressing teachers. The most frequent titles or address forms in the series are *مسن* and *استاذة* *teacher*. Table 10 shows that the title *مسن* *teacher* is used with different schoolteachers in the series (e.g., *عبير* *Abeer* and *جمانة* *Jumana*) and the headmistress (*فاتن* *Faten*).

Phrases related to appearance in the series are mainly about *clothing* and *hair*. According to Netflix's newest guidelines, AD should prioritize an individual's appearance to address the most significant physical features relevant to the plot. Table 11 includes some examples under this category and their English translation.

Table 9: Concordance of 'مريم' *Mariam*

Concordance		
No.	AD	English translation
1	مريم تبكي بصمت.	Mariam is crying silently
2	مريم في غرفتها تعمل على الحاسوب الخاص بها.	Mariam is in her room working on her personal computer
3	مريم ودينا تقتربان.	Mariam and Dina are approaching each other
4	مريم تبكي في الحمام.	Mariam is crying in the bathroom
5	مريم ودينا تفتحن الباب.	Mariam and Dina are opening the door
6	مريم في سريرها تتفقد هاتفها.	Mariam is in her bed checking her phone
7	مريم تخفي وجهها.	Mariam is hiding her face
8	مريم تدخل إلى غرفتها مع نوف.	Mariam is entering her room with Nouf
9	مريم تنظر بدهشة واستغراب.	Mariam is looking with surprise and astonishment

Table 10: Concordance of 'مس' teacher

Concordance		
No.	AD	English translation
1	مس جمانة تعطى طالبة ورقة.	Teacher Jumana is giving a student a paper
2	مس جمانة تصور.	Teacher Jumana is taking a photo
3	مس عيبر تمسك بقلم بعصبية.	Teacher Abeer is holding a pen nervously
4	مس عيبر في الصف تشرح.	Teacher Abeer is explaining in the classroom
5	مس عيبر تركض.	Teacher Abeer is running
6	مس جمانة تجمع الفتيات.	Teacher Jumana is gathering the girls
7	مس جمانة تربت على كتف مريم.	Teacher Jumana is patting on Mariam's shoulder
8	مس فاتن المديرية تنهض وتخرج.	Teacher Faten, the principal, stands up and gets out

Table 11: Concordance of ملابس clothes and شعر Hair

Concordance		
No.	AD	English translation
1	نوف تغير ملابسها.	Nouf is changing her clothes
2	تطالع ملابسها واكسسواراتها.	She is looking at her clothes and accessories
3	الثلاثي يرتدين ملابس عمال نظافة.	The trio are wearing janitors' clothes
4	نوف تضع كحلا أسود وترتدي ملابس سوداء.	Nouf is wearing black eyeliner and wears black clothes
5	يعثر على ملابس أخته.	He found his sister's clothes
6	مس عيبر بملابس السباحة.	Teacher Abeer is wearing swimming clothes
7	تعطيهم ملابس النظافة وسط دهشة الفتيات.	She gives them the janitors' clothes amid the girls' awe
8	تشير رانيا ذات الشعر الأحمر لإحدى زميلاتهما.	Rania, with the red hair , points to one of her colleagues
9	رانيا تسدل شعرها.	Rania lets down her hair
10	تخلع الحجاب وتفرد شعرها.	She takes off the hijab and lets down her hair

Table 11 shows some examples related to clothes, where the characters are described to be wearing and changing clothes. The type of clothes is also referred to as in example 3 (*janitors' clothes*) and example 6 (*swimming clothes*). Concerning hair, the color is sometimes mentioned, as in example 8 (*red hair*) or how it is styled (tied or down).

Description of Actions

When describing actions, not all elements need to be included every time due to temporal and spatial constraints. Audio describers need to be able to specify the most relevant parts of the story without negatively affecting the viewers' experience or depriving them of fully understanding the plot. They should also avoid information overload, especially when details can be recognized from the dialogue or music. Different verbs are found in the frequency list. In this section, the researchers discuss the 56 most frequent action verbs used in the AD along with their derivatives, as shown in Table 12.

As Table 12 shows, verbs like تنظر *look*, تقترب *approach*, and يتبسم *smile* are mentioned frequently in the AD. This category is a keystone in AD as it makes the viewers imagine what is happening on the screen. It can be observed that the describers used a relatively limited number of verbs and avoided using long words and phrases due to spatial and temporal constraints. In addition, it could be argued that including action verbs in the AD significantly enhances the series plot.

The verbs in this category are divided into dynamic or stative verbs. Dynamic verbs are those that show physical actions and indicate continued or progressive action. Stative verbs express a state and are related to

Table 12: Most frequent action verbs in the AD corpus

No.	Verb	English	Frequency	No.	Verb	English	Frequency
1	تنظر	Looks	95	29	تمشي	Walks	7
2	تقترب	Approaches	50	30	تنزل	Gets down	7
3	تبتسم	Smiles	40	31	يظهر	Shows up	7
4	تراقب	Observes	37	32	تابع	Pursues	6
5	تدخل	Enters	34	33	تناول	Eats	6
6	تخرج	Leaves	32	34	تسير	Walks	6
7	تفقد	Checks	27	35	تشاهد	Watches	6
8	تمسك	Holds	26	36	تصعد	Goes up	6
9	تجلس	Sits	26	37	تفكر	Thinks	6
10	تتحرك	Moves	25	38	تبتعد	Gets away	5
11	تضع	Puts	25	39	تبدأ	Starts	5
12	تشير	Points	24	40	تحاول	Tries	5
13	تغادر	Leaves	23	41	تدفعها	Pushes her	5
14	تبكي	Cries	20	42	ترحل	Leaves	5
15	تقف	Stands	14	43	تسترق	Eavesdrop	5
16	تقوم	Gets up	13	44	تعاود	Returns	5
17	تنهد	Sighs	15	45	تقرأ	Reads	5
18	تغلق	Closes	11	46	تملأ	Fills	5
19	تفتح	Opens	10	47	تتفاجأ	Is surprised	4
20	تأخذ	Takes	9	48	تجمع	Collects	4
21	توجه	Heads to	9	49	تراسل	Texts	4
22	تنهض	Gets up	9	50	تركض	Runs	4
23	تظهر	Shows up	8	51	تشعر	Feels	4
24	تعلو	Rises	8	52	تقرع	Rings	4
25	تذكر	Remembers	7	53	تكتب	Writes	4
26	ترد	Responds	7	54	تلتفت	Turns around	4
27	تصل	Reaches	7	55	تلوح	Waves	4
28	تلتقط	Picks up	7	56	تنتبه	Pays attention	4

senses, emotions, and thoughts. Table 13 shows two dynamic verbs, namely *تجلس* *sit* and *تبكي* *cry*, and one stative verb, namely *تفكر* *think*.

The verbs *تجلس* *sit*, *تبكي* *cry*, and *تفكر* *think* are among the most frequently used words in the investigated series. Four examples of each verb are shown in Table 13. These verbs are also described in such a way to show place, time, manner, and degree. For example, the adverbs *بيأس* *desperately*, *بفخر* *proudly*, and *صامتة* *silently*

Table 13: Concordance of the verbs *تجلس* *sit*, *تبكي* *cry*, and *تفكر* *think*

Concordance		
No.	AD	English translation
1	تجلس رانيا بيأس.	Rania is sitting desperately
2	فاتن تجلس بفخر.	Faten is sitting proudly
3	تجلس رقية وتراسله.	Ruqayya is sitting and texting him
4	نوف تجلس صامتة.	Nouf is sitting silently
5	دينا تبكي والفتيات يحطن بها.	Dina is crying while the girls surround her
6	تبكي مريم بأسى.	Mariam is crying with sorrow
7	مريم تبكي في الحمام.	Mariam is crying in the bathroom
8	مريم تبكي والجروح تملأ وجهها.	Mariam is crying, with wounds filling her face
9	نوف ممسكة هاتفها وهي تفكر.	Nouf is holding her phone while thinking
10	نوف تفكر.	Nouf is thinking
11	تأخذ نوف نفسا عميقا وهي تفكر.	Nouf is taking a deep breath while thinking
12	تنظر إلى الشاشة وهي تفكر.	She is looking on screen while thinking

Table 14: Concordance of رقص dancing

Concordance		
No.	AD	English translation
1	الفتيات يرقصن في الحافلة.	The girls are dancing in the bus
2	فتيات وشبان يرقصون.	Girls and boys are dancing
3	رانيا وأحمد وليان وليث يرقصون.	Rania, Ahmad, Layan, and Laith are dancing
4	ليث يرقص مع ليان.	Laith is dancing with Layan
5	أحمد يرقص مع رانيا ويبتسم لنوف.	Ahmad is dancing with Rania and smiles at Nouf
6	الشبان والفتيات يرقصن بجانب بركة السباحة.	The boys and girls are dancing near the swimming pool

are used to describe different ways of sitting. Similarly, crying is described in an accurate way to deliver the feelings of the one crying and make the visually impaired audience feel the emotions and have a more immersive experience of what is shown in the scenes.

Interpersonal Interactions

This category includes words that describe the characters' interpersonal interactions. In other words, any interaction between two or more characters is included under this category, as shown in Table 14.

The verb يرقص dance shows the interaction between people. For example, الفتيات *girls* are the involved parties in example 1, شبان *boys* in example 2, رانيا *Rania*, أحمد *Ahmad*, ليان *Layan*, and ليث *Laith* in example 3, ليث *Laith* and ليان *Layan* in example 4, أحمد *Ahmad* and رانيا *Rania* in example 5, and several boys and girls without specifying names in example 6. In the context of AD, competent describers should learn how to re-see the world around them and truly notice what should be perceived in the eyes of the audience with vision impairment. They should also express the relevant aspects of images with precise and imaginative language and vocal techniques that render the visual-verbal (Snyder).

Description of Setting

Setting is a key aspect of any plot. As per Netflix's AD policy, descriptions should include location, time, as well as weather conditions when relevant to the scene or plot. Table 15 includes some examples of *place* and *time* extracted from the AD corpus.

Table 15: Concordance of place (عمان Amman) and time (صباحا morning, عصرا afternoon, ليلا night)

Concordance		
No.	AD	English translation
1	الحافلة تسير في شوارع عمان صباحا.	The bus is moving in Amman's streets in the morning
2	عمان صباحا.	Amman in the morning
3	سماء مدينة عمان ليلا.	Amman's sky at night
4	عمان فجرا.	Amman at dawn
5	عمان عصرا.	Amman in the afternoon
6	عمان ليلا.	Amman at night
7	صورة من الأعلى لجسر في عمان صباحا.	A photo from above of a bridge in Amman in the morning
8	شوارع عمان ليلا.	Amman's streets at night
9	صورة من الأعلى لجسر في عمان صباحا.	A picture from above of a bridge in Amman in the morning
10	حافلة المدرسة وبها الطالبات صباحا.	The school's bus with the students inside in the morning

Table 16: Concordance of علامات *signs*

Concordance		
No.	AD	English translation
1	علامات الانزعاج تعلق وجه مريم.	Mariam's face shows signs of discomfort
2	فاتن وعلى وجهها علامات الغضب.	Faten's face shows signs of anger
3	تعلق علامات الخجل وجه يزن.	Yazan's face shows signs of shyness
4	علامات الضيق تعلق وجهها.	Her face shows signs of distress

Table 15 shows that the city where the series is shot, namely عمان *Amman*, and the time (صباحا *morning*, عصرا *afternoon*, and ليلا *night*) were frequently referred to in the AD. Example 1 shows a concise description of settings. It allows the blind and visually impaired audience to generate imaginative views of the scenes displayed on the screen. Additionally, Netflix's latest AD guideline assures that the visual elements, such as the naming of locations, should remain consistent within the description across all episodes.

Emotional States

Emotional reactions or states, which are essential parts of non-verbal communication, are discussed in this section. Multiple examples of the word علامات *signs* were spotted, followed by emotional states such as الانزعاج *discomfort*, الغضب *anger*, الخجل *shyness*, and الضيق *distress*. Table 16 shows the characters' names accompanied by their emotional states/reactions.

Facial expressions may tell a lot about the person's mood, such as happiness, surprise, contempt, sadness, fear, disgust, and anger. As discussed earlier, emotional states should be reflected in the AD. They are amongst the most sensitive yet compulsory parts that need to be added and clarified so that the target audiences, the B/VIP, can feel and interact with what is happening in the scenes.

On-Screen Texts

This category covers reading the different types of texts that appear on the screen, including messages, letters, and book titles, to mention a few. The AD in this group is delivered in Jordanian vernacular rather than MSA, mainly because the series is produced in the Jordanian dialect. The researchers found references to 13 texts that were read verbatim (Table 17).

Table 17 includes six examples of the word *message*. The text messages that characters send via different social media websites or mobile phones, for instance, are revealed verbally to the target audience to deliver the message and understand the full scene without missing any essential parts. The inclusion of on-screen texts is a part of the accessibility service that Netflix and some other streaming platforms insert for the visually impaired.

Table 17: On-screen texts for رسالة *message* occurrences

Concordance		
No.	AD	English translation
1	رسالة تصل للفتيات جميعهن بنفس الوقت.	All the girls receive a message at the same time
2	مريم تتفقد هاتفها وتقرأ رسالة.	Mariam checks her phone and reads a message
3	رسالة على الشاشة.	A message is on the screen
4	رسالة من مريم.	A message from Mariam
5	رسالة على هاتف لايان من ليث.	A message from Laith to Layan
6	تصلها رسالة نصية هاتفية بالانجليزية.	She receives a message on her phone in English

Table 18: Code-switching occurrences in *AlRawabi School for Girls*

Concordance		
No.	AD with code-switching	English translation
1	slow motion فناة تمشي بال	A girl is walking in slow motion
2	brave تمزق صورة الغتاة المكتوب عليها	She tears the photograph of the girl, upon which the word brave is written
3	mixer للصوت فناة على مسرح صغير أمام	A girl is in a small theater in front of an audio mixer
4	مريم تتفقد ال iPad الخاص بها باهتمام	Mariam checks her iPad attentively
5	مريم ونوف تراقبان ال tablet.	Mariam and Nouf are watching the tablet
6	تظهر ليان ب mask على عينيها.	Layan shows up with a mask on her eyes
7	تلتقط صورة selfie لها.	She takes a selfie

Code-Switching

Code-switching is defined as the practice of altering between two or more languages or varieties of language (Nilep). Similarly, code-mixing refers to “all cases where lexical items and grammatical features from two languages appear in one sentence” (Muysken 1). In this study, the researchers spotted seven examples of code-switching in the AD version and many others in the original dialogue, as shown in Table 18.

Table 18 shows seven examples of code-switching. Jordan is among the countries that use English frequently because it is taught in schools and universities. Some English loans are frequently used in Arabic conversation instead of their Arabic equivalents, such as *iPad*, *tablet*, and *mask*. This phenomenon is more common among formally educated people, such as academics, as they have the linguistic proficiency and sociolinguistic awareness necessary to move smoothly between these two languages. Most of the English words used in the AD are familiar to the receivers, and some of them, such as *mobile*, *iPad*, *tablet*, *mask*, and *selfie*, are sometimes used even more frequently than their Arabic counterparts.

It is crucial to remember that code-mixing, code-switching, and code-shifting are all common in bilingual and multilingual cultures, so when speakers employ two or more languages in their communication, these linguistic phenomena take place. Such phenomena should not be interpreted as a lack of linguistic ability or aptitude, though. They may occur when speakers include phrases or words from one language into their speech in another language, as in examples 1, 2, and 3. Another strategy is using loanwords, where speakers may utilize loanwords from English, as in examples 4, 5, 6, and 7. Code-switching may occur in the middle of a sentence, where speakers start with Arabic, then switch to English, and then use Arabic again, as examples 4, 6, and 7 show.

These phenomena may also occur when speakers use different Arabic varieties in their communication. Arabic has many dialects spoken across different regions and countries. For instance, some of the major Arabic varieties, including MSA, are Gulf Arabic, Levantine Arabic, Egyptian Arabic, Maghrebi Arabic, and Sudanese Arabic. In the investigated corpus, the audio describer mainly chose to use MSA and sometimes Jordanian vernacular. Again, they are used by speakers to accommodate different linguistic situations and to express themselves more effectively.

The use of code-switching in the AD of this series would also be helpful in creating a similar context to that of the original script, as the characters in the series are students in an international private school and belong to high social classes, so they maintain the use of English all the time.

Conclusion

AVT attempts to make video and media accessibility easier. As technology advances, video accessibility will become more important in terms of society's entertainment needs. AD is crucial for people with visual

impairment to understand the visual content of audio-visual products. The benefits of AD are not limited to this group, though. Other users also find AD helpful for learning new languages and remembering content.

This study identified the types of information covered in the AD of a Netflix series produced in Arabic following a corpus-assisted approach. It classified the main information presented in the AD of *AlRawabi School for Girls* series into six main thematic categories by applying the CL techniques of frequency and concordance (KWIC). Globally, AD is increasingly researched and implemented nowadays, and it has started having a noticeable space in the field of AVT. However, research focusing on AD in the Arabic context is scarce, so it is advisable to investigate other audio-visual products as a means of support for Arab blind and visually impaired audiences.

This study is limited in scope since it analyzes and examines only one series. Although this can be viewed as a good step, research on larger corpora in others could be compiled. This piece of research is corpus-assisted and addresses an issue that helps a group of people with special needs, i.e., blind and visually impaired, by introducing a new corpus that will be available upon request. However, the compiled corpus is limited to only the dialect used in the audio material, i.e., Jordanian vernacular. Other researchers might consider examining other materials that are produced in MSA or other vernaculars.

As this study focused on the covered information in the AD corpus, other researchers may investigate the quality of AD from a technical point of view. It has focused on AD in an Arabic series that aims offering entertainment for the visually impaired community, including the blind and people with low vision. Other researchers could conduct studies on other audio-visual materials, such as documentaries and football matches.

This study investigated the AD of an Arab series in Arabic. Other researchers may examine how Arabic AD is used in dubbed movies and series that are originally produced in languages other than Arabic. By doing so, researchers could further expand their analysis of the cultural dimensions in AD in terms of adaptation to the Arabic public, mitigation of sensible scenes, etc. It examined the differences between the original version of the Jordanian Netflix drama series and the version with AD in terms of the included information. Future researchers may transcribe the dialogues, not just the AD, as this will make it possible to observe the communicative effectiveness of the AD more consistently. From a sociolinguistic point of view, comparing the AD with the original Jordanian dialogues, i.e., not with the subtitles, which are adapted to MSA, would be useful.

This study used one CL software package, namely WS6, and two techniques, namely frequency and concordance, in processing the AD corpus. Future researchers can use different tools such as SketchEngine or techniques such as clusters, collocation, and keywords as this may reveal new findings and help in achieving a more comprehensive understanding of the issue. They could also compile a word list for English–Arabic AD glossaries or audio-visual projects that would help audio describers identify the most frequent terms in the AVT mode.

This article identified the basic information covered in AD and thus could provide a practical guide for prospective audio describers. It could also be helpful for translators, AVT students, and trainers, as well as lexicographers.

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Data availability statement: The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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