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Highlights

A Nonlinear Phonological Analysis

Higher Institutions of Learning in Uganda

State of the National Education System

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Discovering Thoughts, Inventing Future

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By Eman Ali & Radwan Mahadin

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Keywords: *nonlinear phonology; MSA; VNS; weak stems; corpus-study.*

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THE DERIVATION OF TRICONSONANTAL WEAK VERBAL NOUNS IN MODERN STANDARD ARABIC A NONLINEAR PHONOLOGICAL ANALYSIS

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The Derivation of Triconsonantal Weak Verbal Nouns in Modern Standard Arabic: A Nonlinear Phonological Analysis

Eman Ali [α] & Radwan Mahadin [σ]

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Keywords: nonlinear phonology; MSA; VNS; weak stems; corpus-study.

1. Introduction

1.1. Background

Modern Standard Arabic (MSA) is a standard variety of Arabic which emerged around the end of the eighteenth century as a direct descendant of Classical Arabic (CA) (Fischer 1997, 188). A distinction between CA and MSA is commonly made by linguists. The former is a standard variety of Arabic used in the Qurʔa:n and in the pre and early Islamic eras, whereas the latter is the form utilized in formal language contexts in contemporary Arab world. There are 28 consonantal phonemes in MSA which are produced in various places of articulation. Table 1.1 is taken from Ali and Mahadin (2021, 2131) and it presents a phonetic description of MSA consonantal phonemes.

Table 1.1: MSA consonantal phonemes.

b	Voiced bilabial stop	s	Voiceless dental-alveolar fricative	k	Voiceless velar plosive
m	Voiced bilabial nasal	z	Voiced dental-alveolar fricative	x	Voiceless uvular fricative
f	Voiceless labiodental fricative	t̲	Voiceless emphatic dental-alveolar plosive	ɣ	Voiced uvular fricative
j	Voiced palatal glide	d̲	Voiced emphatic dental-alveolar plosive	q	Voiceless uvular stop
w	Voiced labiovelar glide	s̲	Voiceless emphatic dental-alveolar fricative	h̲	Voiceless pharyngeal fricative
θ	Voiceless interdental fricative	ð̲	Voiced emphatic interdental fricative	ʿ	Voiced pharyngeal fricative
ð	Voiced interdental fricative	r	Voiced dental-alveolar tap	ʔ	Voiceless glottal stop
t	Voiceless dental-alveolar stop	l	Voiced dental-alveolar lateral	h	Voiceless glottal fricative
d	Voiced dental-alveolar stop	ʃ	Voiceless postalveolar fricative		

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In contrast to MSA rich inventory of consonantal phonemes, the inventory of vocalic phonemes in this standard variety of Arabic only contains three short vowels which are presented in Table 1.2. Each of the three short vocalic phonemes in MSA has a long counterpart. Nevertheless, length is argued to be a phonetic but not a phonemic feature of MSA vowels (Brame 1970, Levy 1971, Mahadin 1994, Mahadin and El-Yasin 1998, among others). That is, in spite of the fact that long vowels have phonetic realizations, these vowels are not present on MSA phonemic level of representation. A long vowel is conversely assumed to be composed of a sequence of a short vowel and a glide in MSA phonemic representation. This sequence is changed to a long vowel through the application of certain phonological processes such as glide deletion (e.g. /uwu/→ /uu/ → /u:/) and glide assimilation (e.g. /ij/→ /ii/→ /i:/).

Table 1.2: MSA vocalic phonemes

i	high front unrounded
a	low central unrounded
u	high back rounded

In addition to the short and long monophthongs, it is also hypothesized that MSA has a number of diphthongs, i.e. vowels that have the phonetic quality of two sounds but function as one phonological unit (cf. Aniis 1975, Watson 2002, Ryding 2005, Al-Nuri 2007). Aniis (1975, 161) points out that Arabic diphthongs are composed of a combination of the low vowel /a/ and a glide which functions phonologically as one complex vocalic unit. He classifies diphthongs into two types based on the sequencing of their two components. The first type is identified as the falling diphthong and it is composed of a vowel-glide sequence (e.g. ***b*ajt** 'house') and the second is labelled the rising diphthong and it comprises a glide-vowel sequence (e.g. ***ja***sa:r 'left'). On the other hand, Watson (2002, 22), Ryding (2005, 33), Al-Nuri (2007, 219-220) maintained that there are only two diphthongs in MSA, namely the /aw/ and /aj/, which are of the first type.

Conversely, one might argue that the members of the sequences which form the falling and rising types of diphthongs behave phonologically as two units and not as one vocalic unit in MSA. For instance, the alleged rising type of MSA diphthongs commonly occurs in the initial position of the syllable (e.g. ***wa***bar 'fur'). However, the occurrence of a syllable that starts with a vowel, in this case a diphthong, is forbidden in MSA. This is attributed to its violation of a constraint that prohibits the occurrence of onsetless syllables, i.e. syllables that have no consonant in their initial position, in this variety of Arabic.

Similarly, proposing that a low vowel and a glide sequence functions as one vocalic unit in MSA can cause the violation of its constraint on onsetless syllables. For example, suggesting the /aw/ sequence in *ð**aw**aba:n* 'melting' is a falling diphthong entails that the second syllable in this word, viz. the /ab/ syllable, is onsetless which is prohibited in MSA. Consequently, the /aw/ sequence in this word is proposed to be composed of two separate phonological units, i.e. a vocalic unit and a consonantal unit, instead of being composed of one complex vocalic unit. The vocalic unit functions as the nucleus of the first syllable in ***ða**waba:n* and the consonantal unit functions as the onset of its second syllable, i.e. the /wa/ syllable. On the basis of these observations, vowel-glide and glide-vowel sequences are assumed to function as separate phonological units and not as diphthongs in MSA.

As for MSA syllable structure, the onset in this variety of Arabic is an obligatory constituent and thus the syllables that start with a vowel are prohibited. Moreover, the onset constituent in MSA is not to be composed of a consonant cluster, whereas the coda might be empty or contain a cluster of no

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more than two consonants (Watson 2002, 56-59; Ryding 2005, 35-36). In terms of morphology, MSA morphology is described as being mainly nonconcatenative in nature. Nonconcatenative morphology, as opposed to its concatenative counterpart, does not involve concatenating discrete prefixes and suffixes to words without affecting their internal shape. Rather, this type of morphology takes place word-internally and relies heavily on the processes of "reduplication, infixation, morphologically-governed ablaut, and suprafixation" (McCarthy 1981, 373). All the processes that are identified by McCarthy (1981) are frequently employed in Arabic, and in other Semitic languages, except for suprafixation. This morphological process involves inducing a change in the suprasegmental features (e.g. tone and stress) of a word to signal particular grammatical functions as in "the variation in the tonal pattern of the stem as a mark of verbal aspect in Tiv" (ibid).

Reduplication refers to repeating a part of a word to modify an aspect of its meaning or grammatical function. An example of reduplication involves doubling, or geminating, the consonant /s/ in the verb *daras-a* 'he studied' to derive its causative form *darras-a* 'he caused to study'. Infixation can be defined as the insertion of an affix within a word such as the infix /t/ which is added to the verb *katab-a* 'he wrote' to modify its meaning in *ktatab-a* 'he recorded on an official list' (McCarthy 1979, 240). Morphologically-governed ablaut is exemplified by changing the vowel /a/ in the verb *ja-qra?* 'he reads' into /u/ to derive its passive voice *ju-qra?* 'it is read' (Ryding 2005, 46).

Nonconcatenative morphology "pervades most of the derivational system and a good portion of the inflection" in Arabic (Kentsowicz 1994, 397). The remaining portion of Arabic derivational and inflectional systems utilizes the concatenative processes of prefixation and suffixation. For example, the future marker prefix *sa* 'will' is added to the left end of the verb *ja-ʃrah* 'he explains' to derive its future form ***sa****-ja-ʃrah* 'he will explain'.

An important aspect of Arabic morphology is discussed by Brame (1970) who distinguishes between the Arabic root, stem and word. The root is commonly composed of three consonants, or radicals. The stem includes "the underlying radicals with any infixes which may be accompanying" and "the stem taken together with all other affixes will be called the word" (ibid, 4). For instance, infixing the stem vowels, /a:/ and /i/, to the consonantal root [slm] forms the stem *sa:lim* 'he is safe'. Adding the masculine plurality suffix *u:n* to the stem *sa:lim* forms the word *sa:lim-u:n* 'they are safe'.

1.2. Aims of the Study

The present study aims at utilizing two models, viz. the X-slot and the feature geometry models, of nonlinear phonology for the examination of the phonological processes that VNs undergo in the course of their derivation from verbal stems in MSA. The VNs, which are listed under each of the verbal entries in the corpus-based dictionary, viz. *muᶜdʒam ʔalluɣah ʔalᶜarabijjah ʔalmuᶜa:sirah,* that serves as the source of data collection are targeted in the study. The analysis only explores the derivation of the weak forms of these VNs from triconsonantal (form I) verbs.

1.3. The VN

The VN, also known as *ʔalmasdar* 'the source', the noun of action and the noun of verb, is a deverbal substantive which denotes the action or the state of the verb from which it is derived (Wright 1986, 110; Al-Rajihi 1984, 66; Ryding 2005, 75; Al-Samurrai 2013, 71). For example, the VN *rakd* 'running' expresses the action denoted by its corresponding verb *ja-rkud* 'he runs' and the VN *ʔimtila:k* 'possessing' refers to the state expressed by its verbal stem *ja-mtalik* 'he possesses'. Contrary to the other deverbal substantives, such as the active participle (AP) and the passive participle (PP), the derivation of the VNs is not analyzed in the standard or the nonlinear approaches of generative phonology. Accordingly, the current study, to the researcher's knowledge, is the first attempt to explore the derivation of the VN in the generative approach of phonology.

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According to Watson (2002), VNs inflect for number and gender. She states that the "unmarked number" for them is the singular and "the unmarked gender" is the masculine. As such, they generally inflect for the dual and plural numbers as well as for the feminine gender. In addition to the inflection for number and gender, the bare forms of VNs also inflect for case. Arabic has three cases: nominative, genitive, and accusative. These cases are generally indicated by the vowel suffixes: u 'damma' i 'kasra' and a 'fatha', respectively (Ryding 2005, 166). Another inflectional feature that characterizes VNs is definiteness. VNs can be marked for definiteness or indefiniteness. The definiteness marker is the prefix 'ʔal' (e.g. ***ʔal-*** *waᶜd* 'the promise') and the indefiniteness marker is the suffix 'n' (e.g. *waᶜd-u**n*** 'a promise') (ibid, 156).

In accordance with the number of consonants in their roots, VNs are mainly divided into two categories, namely triconsonantal (e.g. *madʒd* 'glory') and quadriconsonantal VNs (*tadʒriba* 'experiment'). Ryding (2005, 92) argues that there are few VNs in Arabic that are biconsonantal such as *hawa:* 'passion'. Brame (1970) and Mahadin (1982), on the other hand, demonstrate that biconsonantal nouns are originally triconsonantal but they appear to be biconsonantal on the surface form as the result of the application of certain phonological processes.

VNs are further classified according to the type of consonants in their roots into strong, geminated, glottalized and weak nouns. Strong VNs (e.g. *naṣr* 'victory') have three or four true consonants in their roots. Geminated VNs have identical second and third radicals (e.g. *ra**dd*** 'reply'); whereas glottalized VNs have a glottal stop as one of their radicals (e.g. *θaʔr* 'revenge') . Finally, a glide (/w/ or /j/) constitutes at least one of the radicals of weak VNs. The weak VNs that have one glide are divided in accordance with the position that the glide occupies into initially (e.g. ***w**aᶜd* 'promise'), medially (e.g. *na**w**m* 'sleep') and finally (e.g. *sal**w*** 'forgetting') weak VNs (Wright 1896). As for the weak VNs that have two glides in their stems, they are identified as doubly-weak VNs (e.g. ***wiqa:jah*** 'protection'). This study only examines the phonological processes that weak VNs undergo in the course of their derivation. The weak VNs are used as the object of analysis due to the inherent instability of the glides which constitute at least one of the radicals of their roots and causes them to be susceptible to diverse phonological rules (Brame 1970, 28). Accordingly, a thorough inspection of the phonological processes that are involved in the derivation of VNs can be provided by choosing weak VNs as the object of analysis.

VNs can be derived from the ten forms of verbs in MSA (cf. Wright 1986, 110-111; Al-Faxiri 1996, 175; Ryding 2005, 75). This study is restricted to the analysis of the VNs which are derived from form I (triconsonantal) of verbs because form I is the bare form of the verb which has a fundamental structure that serves as the source of derivation of the other nine verbal forms (form II- form X). Accordingly, targeting the derivatives of form I can also shed light on the derivational processes employed for forming the derivatives of the other forms of verbs.

The usual practice among linguists (e.g. Ibin jinni (d.1002) and Brame (1970)) is to use the perfective verbal stem as the basic form from which verbal derivatives, including VNs, are derived. However, many researchers, such as Mahadin (1982), Benmamoun (1999) and Abdo (2008), argue for using the imperfective stem as the basic form for derivation. Strong pieces of evidence are presented to support this argument. For instance, Mahadin (1982) asserts that the vowel of the perfective stem can be predicated from that of the imperfective stem, but not vice versa. That is, the stem vowel of the imperfective is lexically determined in the sense that it cannot be predicated accurately by general rules and thus native speakers are assumed to store the imperfective stems in their mental lexicons along with the rules that derive their perfective counterparts. In the same vein, Benmamoun (1999, 180) ascribes taking the imperfective as the input to Arabic derivational morphology to its unmarked default status due to its lack of specification for tense. He further maintained that there is a close similarity between the imperfective stem and various nominal and verbal derivatives which makes their derivation from imperfective stems more economical than deriving them from their perfective counterparts.

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Following Mahadin (1982), Benmamoun (1999) and Abdo (2008), the imperfective, instead of the perfective, verbal stem of form I is used as the base of derivation. The stem of form I imperfective verbs has the skeletal shape CC $\begin{Bmatrix} a \\ i \\ u \end{Bmatrix}$C. This stem can never surface without a personal prefix of the |CV| shape due to the violation of a constraint on MSA syllable structure which bans the occurrence of a cluster of consonants in syllable-onset position (cf. Ali and Mahadin 2021). The prefix |ja| is the unmarked prefix of the imperfective stem, in addition to the |ja|, a number of personal prefixes can attach to the imperfective stem such as |ʔa|, the first person singular prefix, and |na|, the first person plural prefix. The |ja| prefix and other prefixes and suffixes are not part of the base for deriving forms from the verb, rather only the stem of the verb is used as the base of derivation (e.g. the stem /drus/ in the imperfective verb ***ja-drus-u*** 'he studies, indicative case' serves as the base of derivations of other forms from this verb without the personal prefix /ja/ and the indicative case suffix /u/).

2. Method

2.1. Data Collection

The corpus-based dictionary which serves as the source of data collection in the current study is *muᶜdʒam ʔalluɣah ʔalᶜarabijjah ʔalmuᶜa:s̲irah* 'Dictionary of Modern Arabic Language'. This dictionary is compiled by trained researchers led by Omar in 2008 with the purpose of covering the majority of words used in MSA. One of the main goals of the dictionary compilers is avoiding the shortcomings of the pre-existing dictionaries such as building on earlier lexicographic work without conducting thorough examinations and mixing obsolete and common words (Omar 2008). The dictionary is compiled from seven types of sources of MSA which include:

1. Contemporary newspapers and magazines (e.g. ʔalʔhra:m ʔalqa:hirijjah, ʔaʃʃarq ʔalʔawsat̲ ʔassuᶜu:dijjah, ʔaddawh̲ah ʔalqat̲arijjah and ʔalh̲aja:h ʔallubna:nijjah).
2. Audio materials presented in MSA (e.g. news and news commentary programs).
3. Children's stories.
4. Prominent publications on literature, psychology, law, economy, philosophy, history, arts, environment, technology, education, sports, science, etc.
5. Religious sources (e.g. the Qurʔa:n and the sayings of Prophet Muhammad) and common proverb collections.
6. The publications of the Arabic Language Academy in Cairo.
7. Grammar books and dictionaries.

The data from these sources are assembled in a corpus that contains more than one hundred million words which is analyzed statistically in order to include the common words in the dictionary and exclude the uncommon ones. The perfective form of the verb is used as the headword of the 10. 475 verbal entries in this monolingual dictionary. Three deverbal substantives are listed under each of these verbal entries and they include the AP, PP and VN.

The 1222 weak VNs which are listed under triconsonantal (form I) verbal entries in *muᶜdʒam ʔalluɣah ʔalᶜarabijjah ʔalmuᶜa:s̲irah* are grouped in tables in the appendices in accordance with their morphological patterns. The tables in the appendices present the dictionary entry number, the consonantal root, the imperfective verb and the gloss corresponding to each instance of these VNs. Since this study aims at analyzing the phonological aspects of the targeted VNs, these VNs, their consonantal roots and imperfective verbs are not written in MSA orthography. Rather, the phonological symbols which are presented in Table 1.1 and Table 1.2 are employed for transcribing them. It should be noted that the morphological patterns of these VNs are determined on the basis of their realization in the surface representations of strong stems. This is done in an attempt to provide a

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comprehensive account of these patterns and to identify the phonological processes that cause the apparent deviation of the surface representations of weak nominal stems from their strong counterparts.

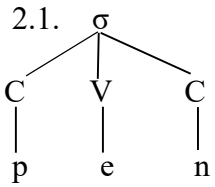
2.2. The Approach

Nonlinear phonology is a recent advance in the school of generative phonology. As opposed to the linear structure of the standard approach of generative phonology, the alternative structure is segregated into distinct levels. These levels are ordered independently of each other but are interconnected by means of association lines (McCarthy 1982, 2). On the basis of utilizing distinct levels of representations, this modified approach of generative phonology is termed multi-linear or nonlinear phonology.

Nonlinear phonology is originally proposed to handle suprasegmental features, which are problematic for the standard (linear) approach. Within the realm of nonlinear phonology, two main theoretical approaches can be identified. These approaches are metrical and autosegmental phonology. The former approach is presented by Liberman (1975) as a theory of stress, whereas the latter is originally proposed by Goldsmith (1976) for describing tone in tonal languages. After proving that it is capable of providing a systematic analysis of tone, the domain of the autosegmental approach of phonology is extended to various non-tonal phenomena. The extensions of the autosegmental domain resulted in developing two major models of this approach, viz. CV phonology and feature geometry.

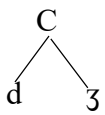
CV phonology is an autosegmental model designed by Clements and Keyser (1983) to represent the internal structure of syllable. This representation is composed of three tiers, i.e. the syllable node, CV and segmental tiers. The three-tier hierarchical structure of the syllable /pen/ is employed as an illustrative example below:

2.1.

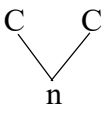


Serving as a model of autosegmental phonology, the association between elements on the CV tier and the segmental tier is subjected to a number of association conventions. Two of the major association conventions are the no-crossing constraint and the obligatory contour principle (OCP). The former prohibits the crossing of association lines and the latter prohibits identical adjacent segments at the segmental tier (Goldsmith, 1976). Adhering to these conventions allows accounting for cases in which the association between these two tiers is not formed in a one-to-one fashion. An example of a one-to-many association pattern is exemplified by the affricate /dʒ/ which is classified as a complex (contour) segment, while a many-to-one association between the CV tier and the segmental tier is found in the geminate (long consonant) /n:/. These are presented in 2.2 (a) and (b) respectively.

2.2. a.



b.



The development of CV phonology involves introducing some modifications to this model. One of these modifications is introducing a syllable constituent, labelled the rhyme, that contains the nucleus and the coda. Combining the nucleus and the coda into one constituent independent from the onset is based on the analysis of the phonotactic constrains of co-concurrence restrictions (Selkirk 1982). These constraints indicate that the restrictions on the co-concurrence of vowels and their preceding consonants are very rare, while those restrictions are very frequent between vowels and their succeeding consonants. Consequently, the latter are assumed to form a unit independent from the former.

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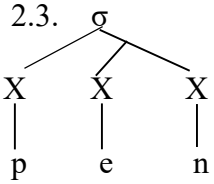
In addition to the introduction of the rhyme, another modification to CV phonology is based on considering the distinction between the C and V elements on the CV tier redundant and arguing that these elements are to be replaced with empty uniform positions labelled as X-slots (Levin 1985). A major impetus for the development of the X-slot model is ascribed to observing that C elements can be associated with vowels and V elements can be mapped to consonants which is common in compensatory lengthening processes (cf. Hayes 1989). Integrating these two modifications into the representation of the syllable /pen/ is shown in 2.3.

2.3.

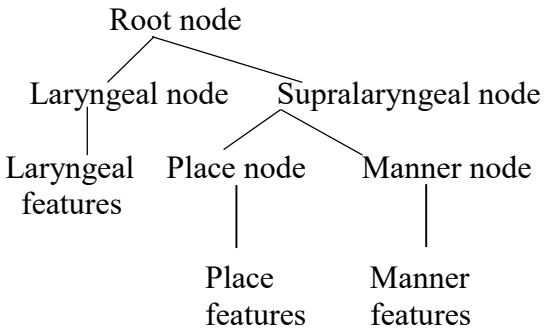


Another model of autosegmental phonology is developed principally by Clements (1985) for the description of the internal structure of speech sounds and it is identified as the feature geometry model. This model emerged as a reaction to the standard generativists' assumption that the distinctive features from which a given speech segment is composed are grouped into an unordered matrix that has no internal organization. The standard representation of features is found to be incapable of depicting the fact that certain sets of features constitute a unit with respect to phonological rules and to phonemic inventory constructions. Another shortcoming of this representation is that it fails to express the fact that certain features introduce distinctions in other features such as the features [anterior] and [distributed] which are only relevant for coronal consonants (Kenstowicz 1994, 146).

In order to capture generalizations about the natural groupings of features, Clements (1985) proposed a hierarchical organization of segment-internal features into functionally independent classes that are grouped under nodes of a tree structure. The organization of the features into the tree structure is primarily determined by the behavior of features in phonological processes and constraints. That is, the features that behave as an independent unit with respect to processes and constraints, such as assimilation, dissimilation, reduction and OCP, are assigned to the same node (ibid, 227).

Within the tree structure of this model, the features occupy the terminal nodes and they are dominated by intermediate nodes termed the class nodes. The class nodes are divided into laryngeal and supralaryngeal nodes and the latter node, in turn, comprises the place and manner subnodes. The root node dominates the class nodes and groups all the features of a given segment and links them to the CV tier. The diagram below presents the outline of Clements' (1985) feature geometry model:

2.4.



As opposed to the standard approach which treats features as matrix entries that are incapable of autonomous behavior, within the feature geometry model, features are regarded as independent units,

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or autosegments, that can engage independently in phonological processes (ibid, 227). A major advantage to considering features as autosegments is facilitating accounting for the phonetic naturalness of assimilation processes.

Since the development of Clements' (1985) model of feature geometry, various modifications to this model were proposed through subsequent research in this area. One of the leading proposals is assuming that the major class features [consonantal] and [sonorant] form the root of the feature tree (McCarthy 1988, Halle 1992, Kenstowicz 1994, among others). A second important development introduced by McCarthy (1988) is dispensing with the manner and the supralaryngeal nodes. Dispensing with the manner node is based on testing it against phonological rules and constraints which reveal that the daughters of the manner node, viz. [continuant], [nasal], [lateral] and [strident], do not act as a unit with respect to them. As the manner features are not grouped under a class node and are not dependent on a specific place of articulation, they are directly linked to the root node (e.g. McCarthy 1988, Halle 1995). As a result of eliminating the manner node, the supralaryngeal node ends up dominating only the place node. Upon examination, the supralaryngeal and place nodes turn out to perform complementary functions in phonological rules (McCarthy 1988, 92-93). Accordingly, the supralaryngeal node is also dispensed with due to playing no role in feature geometry.

Another significant elaboration on the model of feature geometry is the introduction of the articulator theory by Sagey (1986). This theory plays a major role in the internal organization of the place node. Based on the articulator theory, the place node is divided according to the constricting gestures of the active articulators of segments into labial, coronal and dorsal classes. The labial, coronal and dorsal articulators dominate a set of articulator-bound features. Articulator-bound features, as opposed to articulator-free features exemplified by the root and manner features, depend exclusively for their execution on one of these three articulators (Halle 1995, 3). The articulator-bound feature [round] is a dependent of [labial]; [anterior] and [distributed] are dependents of [coronal]; and [back], [high] and [low] are dependents of [dorsal].

After presenting extensive evidence for considering gutturals a natural class of sounds, a further modification to the place node is proposed by McCarthy (1994). This modification involves introducing a place node to define gutturals. Gutturals are consonants produced with "a primary constriction in the posterior region of the vocal tract" and they include a set of glottal (ʔ, h), pharyngeal (ḥ, ʿ) and uvular (x, ɣ) consonants (McCarthy 1994, 191). In order to locate this node in the hierarchical tree, Vaux (1993) breaks the place node into two branches, viz. the upper vocal tract node (UVT) which is employed for producing the oral sounds and dominates the labial, coronal and dorsal articulators and the lower vocal tract node (LVT) which is employed for producing the guttural sounds and dominates the dorsal, laryngeal and radical articulators.

As can be noticed, the dorsal articulator is dominated by the UVT and LVT nodes. Kenstowicz (1994, 459) argues that the double domination of the dorsal articulator by these nodes makes sense since this articulator lies at the boundary between the oral and pharyngeal cavities and can thus enter either of them. As for the articulator-bound features that are dominated by the laryngeal and radical articulators, Vaux (1996) maintains that the feature retracted tongue root [RTR] is used for the description of both uvulars and pharyngeals and it is dominated by the radical articulator. The laryngeal articulator is involved in the production of the glottal sounds and it also encompasses the articulator-bound feature [voiced] which is used for classifying speech sounds according to their voicing specifications (cf. Davis 1995, Halle 1995, Halle, et al. 2000).

Finally, Clements' (1985) model of feature geometry is integrated with the underspecification theory which entails that redundant features are underlyingly underspecified for the relevant segments and stated by means of a general rule identified as a redundancy, or a default, rules. Spencer (1996, 126-

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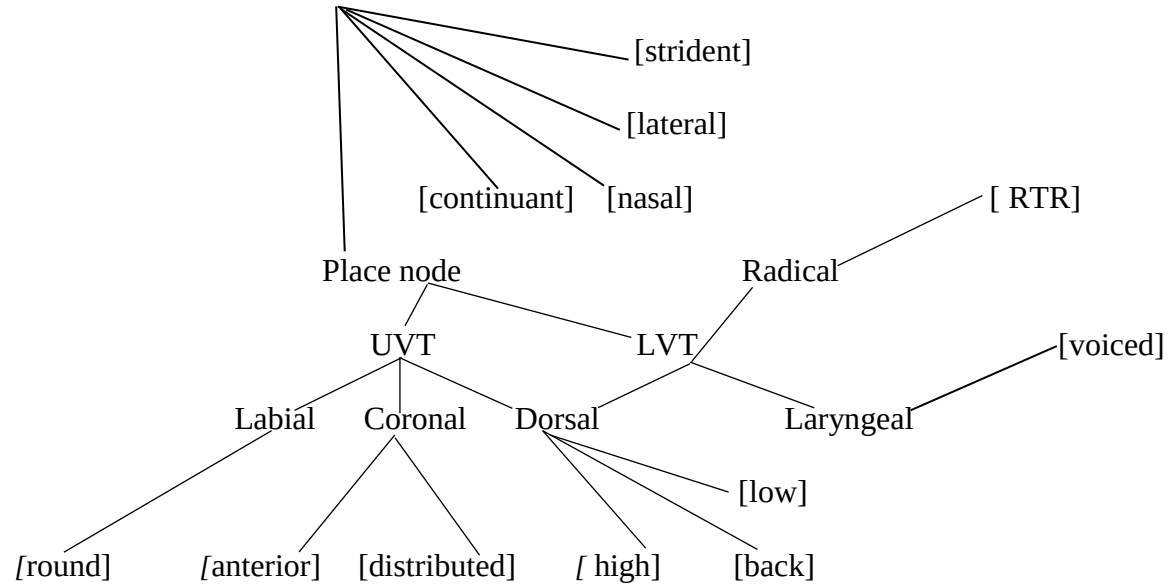
127) maintains that representing redundancies in terms of rules enables capturing significant linguistic generalizations and giving an accurate account of various phonological processes. Watson (2002) and Bin Muqbil (2006) demonstrate that the interaction of the feature geometric hierarchy with universal and language-specific default rules renders it unnecessary for any feature to be bivalent. Featural monovalency entails leaving the absence of a feature underspecified and only specifying its presence. Based on the aforementioned modifications of the proposed structures of the feature geometry, the overall picture of the model that will be used in the current study is presented in 2.5.

2.5. [consonantal], [sonorant]



2.3. Data analysis

The phonological processes that the targeted VNs undergo in the course of their derivation from their verbal stems are analyzed in the current study. The analysis of the derivational processes of these VNs starts with determining the underlying shapes of the imperfective verbal stems from which they are derived. It should be indicated that the surface shapes of these imperfective verbal stems are listed under each of the perfective verbal entries in *mu^{c}dʒam ʔalluɣah ʔal^{c}arabijjah ʔalmu^{c}a:s̲irah.* As demonstrated in Ali and Mahadin (2021), the imperfective verbal stems from which deverbal derivatives, including the VNs, are derived have the underlying shape $|C_1C_2VC_3|$. The underlying shapes of the imperfective stems are used as the bases for deriving the underlying shapes of their corresponding VNs. Afterwards, the phonological processes that cause changing the underlying shapes of these VNs to their surface shapes are discussed.

Two models, viz. the X-slot and the feature geometry models, of nonlinear phonology are employed for conducting the analysis. The feature geometry model offers a thorough depiction of the internal structure of speech segments which enables accounting for the naturalness of the assimilation and dissimilation processes which target the analyzed VNs in the course of their derivation. To make the examination feasible, only the parts of the feature geometry trees that are relevant for the analysis will be represented.

The X-slot model is employed for representing the rules which do not require referring to the internal structure of speech segments such as elision, epenthesis, compensatory lengthening and metathesis rules. For instance, elision rules result in the deletion of whole speech segments and not specific features of them; thus representing them within the X-slot model is more efficient and economical. This model utilizes the syllable, a purely phonological domain, for the expression of phonological processes. In addition to the syllable, the morpheme and word domains are also utilized

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for the statement of phonological processes to account for the close interactions between phonology and morphology. The analysis of the interactions between these two branches of linguistics, identified as morphophonemics, is argued to be important for developing any comprehensive theoretical model of phonology of or morphology (cf. McCarthy and Smith1983, Gussmann 1985, Jensen 1990, Oztaner 1996).

3. Results and Discussion

3.1. Introduction

The morphological patterns that are utilized for forming VNs from form I triconsonantal verbs are numerous (cf. Wright 1986, 110-111; Al-Faxiri 1996, 175; Ryding 2005, 75). On other hand, the patterns of the VNs which are derived from the other nine forms of the verb are much more limited in number in that each of these verbal forms is generally associated with one VN pattern (e.g. the pattern |ʔiC$_1$tiC$_2$a:C$_3$| is typically used for deriving VNs from form VIII verbal stems of the shape |ja+C$_1$taC$_2$iC$_3$| like *ʔintixa:b* 'election' which is derived from *ja-ntaxib* 'he elects').

Different shades of meaning are commonly associated with the various VN patterns of form I verbal stems (cf. Abd Al-Ghani 2010, 146-148; Al-Samurrai 2013, 71). For instance, the pattern |C$_1$uC$_2$a:C$_3$| is mainly employed for deriving VN patterns that denote sickness (e.g. *su^{c}a:l* 'coughing'). Furthermore, the VN pattern |C$_1$aC$_2$aC$_3$a:n| usually indicates aspects related to continuous movement (e.g. *ɣalaja:n* 'boiling') and the VN Pattern |C$_1$aC$_2$i:C$_3$| regularly designates types of sounds (e.g. *zaʔi:r* 'roaring'). Consequently, a form I verbal stem can have more than one VN with each of them indicating a different shade of meaning. For instance, the imperfective verb *ja-zra^{c}* 'he plants' has two VN forms, i.e. *zira:^{c}ah* 'agriculture' and *zarc* 'planting'. Table 3.1 presents the frequencies of the initially, medially, finally and doubly weak VNs which are derived from triconsonantal verbal stems (form I) in the complied VN corpus.

Table 3.1: The frequencies of the initially, medially, finally and doubly weak VN patterns

	Pattern	Initially-weak VNs		Medially-weak VNs		Finally-weak VNs		Doubly-weak VNs		Total	
1	C$_1$aC$_2$C$_3$+an	76	36.7%	264	52%	159	35.4%	21	36.8%	522	42.7%
2	C$_1$uC$_2$u:C$_3$+an	31	15%	14	2.8%	39	8.7%	—	—	84	6.9%
3	C$_1$aC$_2$aC$_3$+an	21	10.1%	19	3.7%	40	8.9%	5	8.8%	85	7%
4	C$_1$aC$_2$a:C$_3$at+an	12	5.8%	—	—	18	4%	4	7%	34	2.8%
5	C$_1$iC$_2$C$_3$at+an	18	8.7%	10	2%	7	1.6%	3	5.3%	38	3.1%
6	C$_1$aC$_2$i:C$_3$+an	10	4.8%	—	—	3	0.7%	—	—	13	1%
7	C$_1$aC$_2$aC$_3$a:n+an	9	4.3%	56	11%	9	2%	—	—	74	6%
8	C$_1$aC$_2$a:C$_3$+an	6	2.9%	22	4.3%	43	9.6%	5	8.8%	76	6.2%
9	C$_1$uC$_2$C$_3$+an	6	2.9%	3	0.6%	10	2.2%	—	—	19	1.6%
10	C$_1$aC$_2$C$_3$at+an	4	1.9%	20	3.9%	18	4%	—	—	42	3.4%
11	C$_1$iC$_2$a:C$_3$at+an	4	1.9%	25	4.9%	19	4.2%	6	10.5%	54	4.4%
12	C$_1$iC$_2$C$_3$+an	3	1.4%	6	1.2%	—	—	2	3.5%	11	0.9%
13	C$_1$aC$_2$i:C$_3$at+an	2	1%	—	—	1	0.2%	—	—	3	0.2%
14	C$_1$aC$_2$aC$_3$at+an	2	1%			7	1.6%	—	—	9	0.7%
15	C$_1$iC$_2$C$_3$a:n+an	1	0.5%	—	—	5	1.1%	—	—	6	0.5%
16	C$_1$uC$_2$C$_3$a:n+an	1	0.5%	—	—	6	1.3%	—	—	7	0.6%
17	ma+C$_1$C$_2$iC$_3$at+an	1	0.5%	—	—	—	—	—	—	1	0.1%
18	C$_1$iC$_2$a:C$_3$+an	—	—	28	5.5%	21	4.7%	—	—	49	4%
19	C$_1$ajC$_2$C$_3$u:C$_3$at+an	—	—	10	2%	—	—	—	—	10	0.8%
20	C$_1$aC$_2$iC$_3$at+an	—	—	5	1%	—	—	—	—	5	0.4%
21	C$_1$uC$_2$u:C$_3$at+an	—	—	5	1%	4	0.9%	—	—	9	0.7%
22	C$_1$uC$_2$a:C$_3$+an	—	—	5	1%	8	1.8%	1	1.8%	14	1.1%
23	ma+C$_1$C$_2$aC$_3$+an	—	—	3	0.6%	—	—	—	—	3	0.2%

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24	ma+$C_1C_2aC_3$at+an	—	—	2	0.4%	—	—	—	—	2	0.2%
25	ti+ C_1C_2a:C_3+an	—	—	2	0.4%	—	—	—	—	2	0.2%
26	ta+ C_1C_2a:C_3+an	—	—	2	0.4%	—	—	—	—	2	0.2%
27	$C_1iC_2aC_3$+an	—	—	1	0.2%	9	2%	1	1.8%	11	0.9%
28	$C_1uC_2C_3$at+an	—	—	1	0.2%	8	1.8%	—	—	9	0.7%
29	$C_1iC_2u:C_3$+an	—	—	1	0.2%	—	—	—	—	1	0.1%
30	$C_1uC_2C_3$a:ʔ+an	—	—	1	0.2%	—	—	—	—	1	0.1%
31	$C_1aC_2a:C_3$ijat+an	—	—	1	0.2%	—	—	—	—	1	0.1%
32	ma+$C_1C_2iC_3$+an	—	—	1	0.2%	—	—	—	—	1	0.1%
33	$C_1uC_2i:C_3$+an	—	—	—	—	9	2%	9	15.8%	18	1.5%
34	$C_1uC_2aC_3$+an	—	—	—	—	4	0.9%	—	—	4	0.3%
35	$C_1iC_2i:C_3$+an	—	—	—	—	2	0.4%	—	—	2	0.2%
Total		207	100%	507	100%	449	100%	57	100%	1222	100%

As shown in Table 3.1, 1222 VNs are targeted in the current corpus, 507 of these VNs are medially-weak, 449 of them are finally-weak, 207 are initially-weak and 57 are doubly-weak. It can be noted that the /an/ suffix, which is composed of the accusative case suffix /a/ and the indefinite form maker /n/, is added to all the 35 the patterns of these VNs. This is ascribed to the observation that the VNs in dictionaries and grammar books, including the dictionary which serves as the source of data collection in this study, are regularly cited in the accusative case and the indefinite form.

In line with the general assumption that the most frequently used pattern for deriving VNs from form I triconsonantal verbs is |$C_1aC_2C_3$+an|, the most frequent VN pattern in the present corpus is |$C_1aC_2C_3$+an| and it accounts for 42.7% of the analyzed VN patterns (cf. Brame 1970, 273; Al-Faxiri 1996, 175-176). The second most frequent VN pattern is |$C_1aC_2aC_3$+an| which constitutes 7 % of the employed VN patterns. The wide difference between the first and second most frequent VNs validates the assumption that the most basic VN pattern of form I verbal stems is |$C_1aC_2C_3$+an|. Furthermore, in addition to |$C_1aC_2C_3$+an| and |$C_1aC_2aC_3$+an|, the VN patterns |$C_1iC_2C_3$at+an|, |$C_1iC_2a:C_3$at+an| and |$C_1aC_2a:C_3$+an| are the only patterns which are utilized for deriving initially, medially, finally and doubly weak VNs. On the other hand, the other VN patterns are not employed for deriving all the four types of VNs and some of them are only used for forming one type of VNs (e.g. the patterns |ti+ C_1C_2a:C_3+an| and |$C_1uC_2C_3$a:ʔ+an| are only used for deriving medially-weak VNs).

The following sections analyze each of the 35 patterns which are used for driving the targeted weak VNs. These sections are ordered in accordance with the similarity in the shape of the analyzed VN patterns. For instance, the VN patterns |$C_1aC_2C_3$+an|, |$C_1iC_2C_3$+an| and |$C_1uC_2C_3$+an| have the shape |$C_1VC_2C_3$+an|; hence they are discussed in consecutive sections.

3.2. The derivation of weak VNs of the pattern |$C_1aC_2C_3$+an|

The surface representations of the 76 initially-weak, the 264 medially-weak and the 159 finally-weak VNs of the pattern |$C_1aC_2C_3$+an|, which are listed in Table 5.1, Table 5.18 and Table 5.43 in the appendices, respectively, are of the same surface shape of the strong VNs that have this pattern (e.g. *na<u>s</u>r* 'victory'). Accordingly, the derivation of the surface representations of these weak VNs from their verbal stems only requires using the two rules that are utilized for forming their strong counterparts. The first rule is a morphologically-conditioned ablaut rule which changes the stem vowel of the verbal stem |CCVC| to /a/ (CCVC→ CCaC). The second rule is a phonologically-conditioned rule which metathesizes the /a/ vowel and the consonant that precedes it (CCaC→ CaCC).

The metathesis rule is considered a phonologically-conditioned rule because it is applied to break up the consonant cluster which occurs in the onset position of the syllable in the VN pattern |**CC**aC|. That is, the imperfective stems, which serve as the basis for the derivation of VNs, are allowed to be of the shape **|CC**VC| because they are always preceded by a personal prefix that has a |CV| shape which enables re-syllabifying the first consonant in these stems as the coda of its preceding

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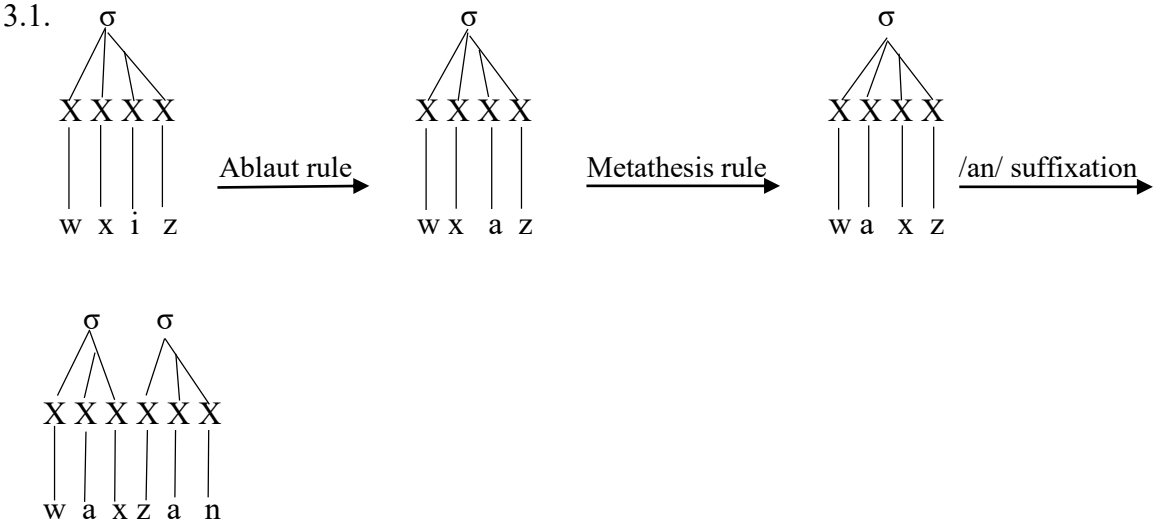
syllable (CV**.CC**VC→ CV**C.C**VC). On the other hand, the VN pattern |$C_1aC_2C_3$+an| does not have to be preceded by any prefixes; thus one can assume that its underlying representation is |$C_1C_2aC_3$+an|, which is produced through the application of an ablaut rule, and this representation surfaces as |$C_1aC_2C_3$+an| by a metathesis rule which is applied to avoid the occurrence of a complex onset.

The derivation of weak VNs that have the pattern |$C_1aC_2C_3$+an| from their verbal stems is exemplified by deriving the initially-weak VN *waxz-an* 'piercing, accusative/indefinite form' from *wxiz*, i.e. the stem of its imperfective verb *ja-xiz* 'he pierces', which involves changing the stem vowel /i/ to /a/ (*wx**i**z*→ *wx**a**z*) and metathesizing the latter and the consonant /x/ (*w**xa**z* → *w**ax**z*). Finally, the suffix /an/ is added to this verbal stem to derive its accusative/indefinite form (*waxz*→ *waxz-**an**)*. The autosegmental representation of this derivational process is depicted in 3.1.

3.1.



Akin to their initially-weak counterparts, the derivation of the surface representations of the medially-weak (e.g. ***ɣaj**θ-an* 'helping, accusative/indefinite form') and the finally-weak (e.g. *sal**w**-an* 'forgetting, accusative/indefinite form') VNs of the pattern |$C_1aC_2C_3$+an| only requires the application of the ablaut and metathesis rules to their verbal stems. As for the 21 doubly-weak VNs, which are shown in Table 5.66 in the appendices, they are divided into two categories. The first category is of the underlying shape |waC_2j+an| and the second category is of the underlying shape |C_1awj+an|.

The 10 VNs which are of the underlying shape |waC_2j+an| exhibit the same derivational pattern of the other VNs of the pattern |$C_1aC_2C_3$+an| (e.g. ***wa**ᶜ**j**-an* 'awareness, accusative/indefinite form'). For example, deriving the VN *waḥj-an* 'inspiration, accusative/indefinite form' from *wḥij*, i.e. the underlying stem of the imperfective verb *jaḥi:* 'he inspires', involves applying the ablaut rule to change its stem vowel /i/ to /a/ (*wḥij* → *wḥaj*) and the metathesis rule to switch the place of the /a/ and the /ḥ/ (*wḥaj*→ *waḥj).* Afterwards, the suffix /an/ is added to *waḥj* 'inspiration' to derive its accusative/ indefinite form (*waḥj*→ *waḥj-an)*.

On the other hand, the formation of the surface representations of the 11 doubly-weak VNs that have the underlying shape |C_1awj+an| entails applying the /w/-fronting rule after the application of the ablaut and metathesis rules. The /w/-fronting rule, as stated in 3.2 (a), is a total assimilation rule that changes the /w/ to /j/ when it is preceded or followed by /j/ (Brame 1970, 453). The representation of the /w/-fronting rule in the feature geometry model is shown in 3.2 (b).

$$3.2\ (a).\ w \rightarrow j \,/ \begin{Bmatrix} -\ j \\ j\ - \end{Bmatrix}$$

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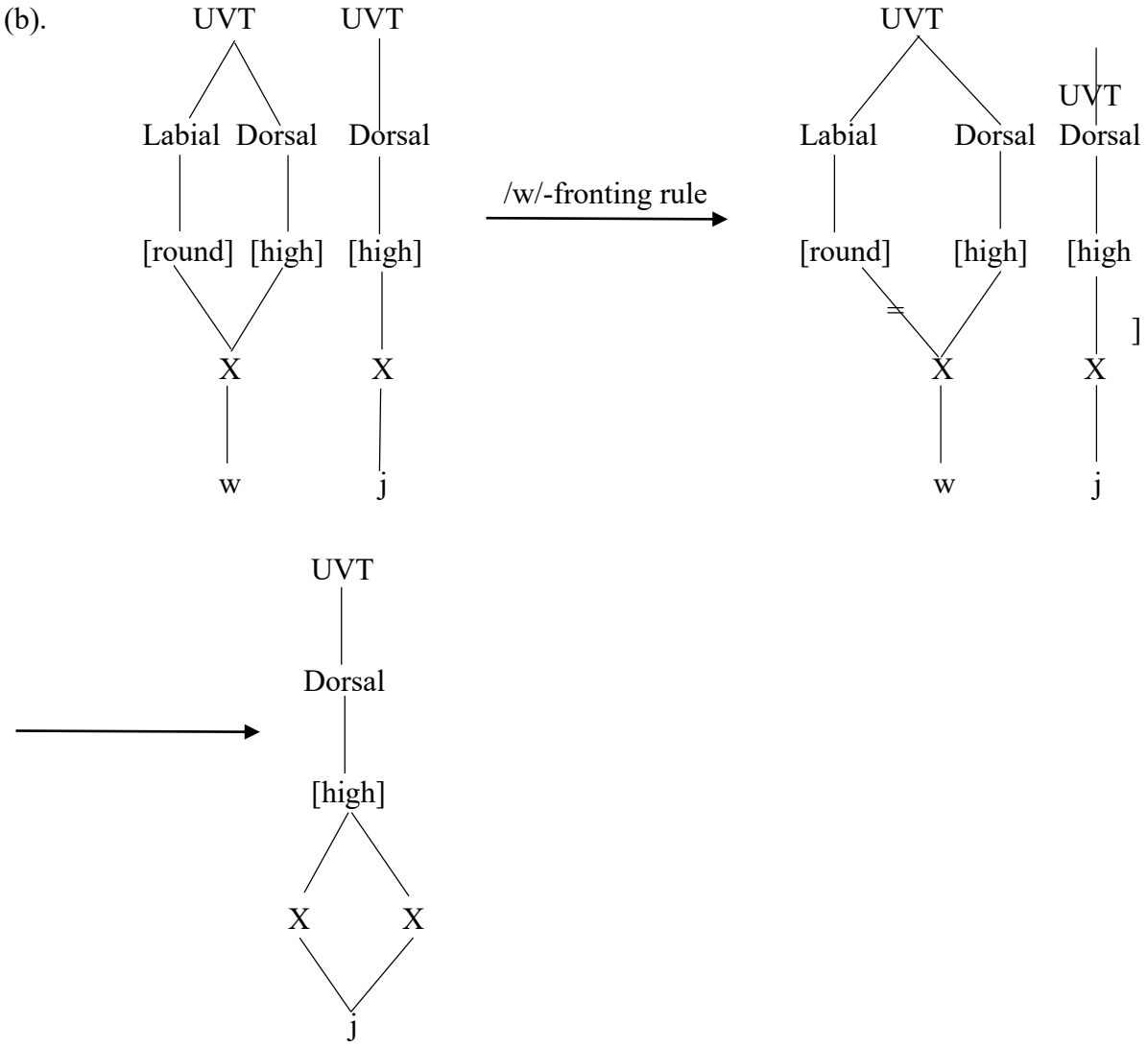
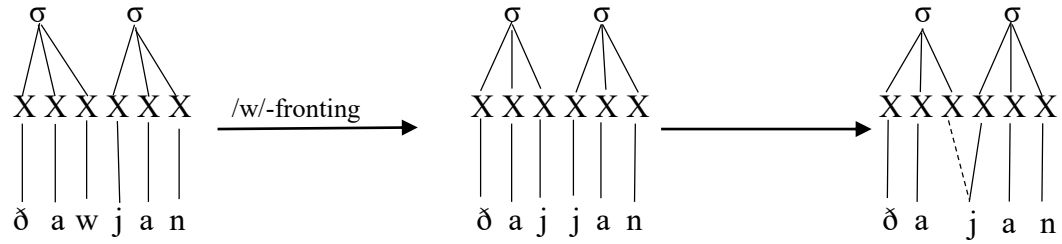
(b).



As shown in 3.2 (b), the assimilation of the /w/ to the /j/ through the /w/-fronting rule is depicted in the feature geometry model by delinking the feature [round] from the former glide which results in changing it to the latter glide because these two glides differ only in this feature. This rule applies to all the doubly weak VNs of the underlying shape |C_1awj+an|, except for one, to derive their surface representations. The VN which does not undergo the /w/-fronting rule is *ða**wj**-an* 'withering, accusative/indefinite form'. Interestingly, this VN has another alternative form which undergoes this rule and surfaces as *ða**jj**-an* 'withering, accusative/indefinite form'. Consequently, the failure of *ða**wj**-an* to undergo the /w/-fronting rule cannot be attributed to a phonological reason; rather it can be identified as a form of free variation. The autosegmental representation of the derivation of *ða**jj**-an* from *ða**wj**-an* is shown in 3.3.

3.3.



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As shown in 3.3, two adjacent instances of the glide /j/ appear on the melody tier after the application of the /w/-fronting rule. The occurrence of identical adjacent elements on the melody tier is banned by the OCP. Consequently, these two adjacent instances of the glide /j/ are combined to form the long consonant, viz. the geminate, /j:/. Interestingly, the two X-slots to which the geminate /j:/ is attached belong to two different syllables. The first constitutes the coda of a syllable, whereas the second occupies the onset position of another syllable. Dividing the quantity of the geminate /j:/ between two syllables is ascribed to the observation that syllabifying this geminate as the coda of the first syllable causes the second syllable to become onsetless which is not allowed in MSA (**ðaj:an*) and syllabifying it as the onset of the second syllable is not possible because geminates cannot occur in syllable-onset-position in MSA (**ðaj:an*) (cf. Brame 1970, Mahadin 1982).

3.3. The derivation of weak VNs of the pattern |$C_1iC_2C_3$+an|

The underlying representations of the 11 weak VNs of the pattern |$C_1iC_2C_3$+an| are formed by subjecting their verbal stems to the ablaut and metathesis rules and adding the accusative/indefinite form suffix /an/ to them (CCVC→ CC**i**C→ C**iC**C→ CiCC+**an**). The 3 initially-weak VNs of this pattern, as shown in Table 5.12 in the appendices, are *wizr-an* 'sin, accusative/indefinite form' and *wirθ-an* 'inheritance, accusative/indefinite form' which has the alternative surface form *ʔirθ-an*. The surface representations of *wizr-an* and *wirθ-an* are the same as their underlying representations, whereas *ʔirθ-an* has the underlying form *wirθ-an*.

The surface representation of the VN *ʔirθ-an* is derived from its underlying representation *wirθ-an* through the deletion of the /w/ by the /w/-deletion rule which stipulates that the /w/ is deleted when it is followed by a |C_2iC_3| sequence (Mahadin 1982, 273). The deletion of the /w/ causes this VN to become onsetless which is a violation of MSA syllable structure constraints; thus the glottal stop /ʔ/, which is commonly used as an epenthetic sound in MSA, is inserted to fill the empty onset position (*irθ-an*→ *ʔirθ-an*). It is worth indicating that no phonological motivations can posited for the failure of the /w/-deletion rule to apply to *wirθ-an* and *wizr-an* because there is an alternative form to the former which undergoes this rule, i.e. *ʔirθ-an,* and there are VNs of the pattern |$C_1iC_2C_3$at+an| which undergo this rule despite having similar radicals to the latter (see Section 3.13).

The formation of the surface representations of the 6 medially-weak VNs of the pattern |$C_1iC_2C_3$+an|, which are listed in Table 5.28 in the appendices, requires applying the glide assimilation rule, as presented in 3.4, after the application of the rules that derive their underlying representations. That is, applying the ablaut and metathesis rules derives the underlying representations of these VNs which are of the shape |C_1iGC_3+an|. The underlying glide in 5 of these VNs is /j/. The /ij/ sequence in |C_1**ij**C_3+an| meets the conditioning environment for the glide assimilation rule which involves the assimilation of the glides to their cognate vowels when they are preceded by these vowels (cf. Brame 1970, Mahadin 1982, Abushunar and Mahadin 2017, among others). The glide assimilation rule changes the sequences /ij/ and /uw/ to /ii/ and /uu/, respectively, when these sequences occur at the end of the word or when are followed by consonants specified for the feature [consonantal] (cf. Ali 2020).

3.4. $\begin{Bmatrix} j \\ w \end{Bmatrix} \rightarrow \begin{Bmatrix} i \\ u \end{Bmatrix} / \begin{Bmatrix} i \\ u \end{Bmatrix} __ \begin{Bmatrix} C\ [\text{consonantal}] \\ \# \end{Bmatrix}$ (# designates word boundary)

As opposed to the /w/-fronting rule, the representation of the glide assimilation rule does not require utilizing the feature geometry model, because this rule assimilates a glide to its cognate vowel. A glide and its cognate vowel are phonetically similar; hence they have the same representation in the adopted model of feature geometry. The only difference between these two sounds is that the latter

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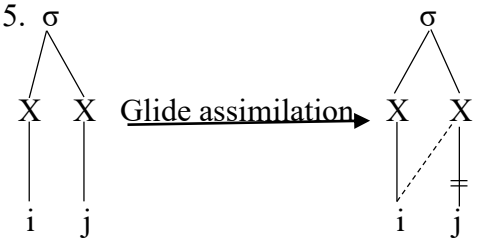
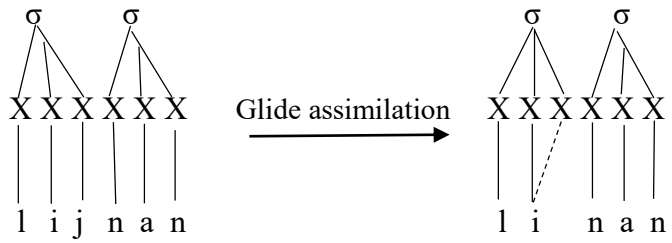
occupies the nucleus position of the syllable, whereas the former occupies a non-nucleus position, i.e. an onset or coda position. Consequently, assimilating a glide to its cognate vowel only requires delinking the glide from its non-nucleus position and attaching it to the nucleus position of its cognate vowel which results in forming a long vowel. This can be straightforwardly depicted in the X-slot model of autosegmental phonology. Changing the /ij/ sequence to /i:/ through the glide assimilation rule is depicted in in the X-slot model in 3.5.

3.5.



Undergoing the glide assimilation rule causes the sequence |C_1**ij**C_3+an| in these VNs to surface as |C_1**i:**C_3+an| and it derives their surface representations (e.g. l**ij**n-an →l**i:**n-an 'tenderness, accusative case' which is presented in 3.6).

3.6.



As opposed to these 5 VNs, the medially-weak VN *qi:l-an* 'talk, accusative/indefinite form' has the glide /w/ as its underlying glide. Consequently, its underlying representation is of the shape |C_1**iw**C_3+an|. The /iw/ sequence cannot undergo the glide assimilation rule because the /w/ is not the cognate glide of the /i/. Since the glide assimilation rule cannot apply to the sequence /iw/ because its two members are phonetically dissimilar, the /w/-to-/j/ rule, proposed by Brame (1970, 226), is employed to resolve the problem of the impermissible sequencing of the /i/ and /w/. This rule, as stated in 3.7, changes the /w/ to /j/ when it is preceded by /i/ and the /j/ to /w/ when it is preceded by /u/.

3.7. $\begin{Bmatrix} w \\ j \end{Bmatrix} \rightarrow \begin{Bmatrix} j \\ w \end{Bmatrix} / \begin{Bmatrix} i \\ u \end{Bmatrix} __$

As an instance of assimilation rules, the depiction of the application of the /w/-to-/j/ rule requires resorting to the feature geometry model of autosegmental phonology. The application of the /w/-to-/j/ rule to the sequence /iw/ in *qiwl-an* is represented within the feature geometry model in 3.8 where only the relevant features for the analysis are represented.

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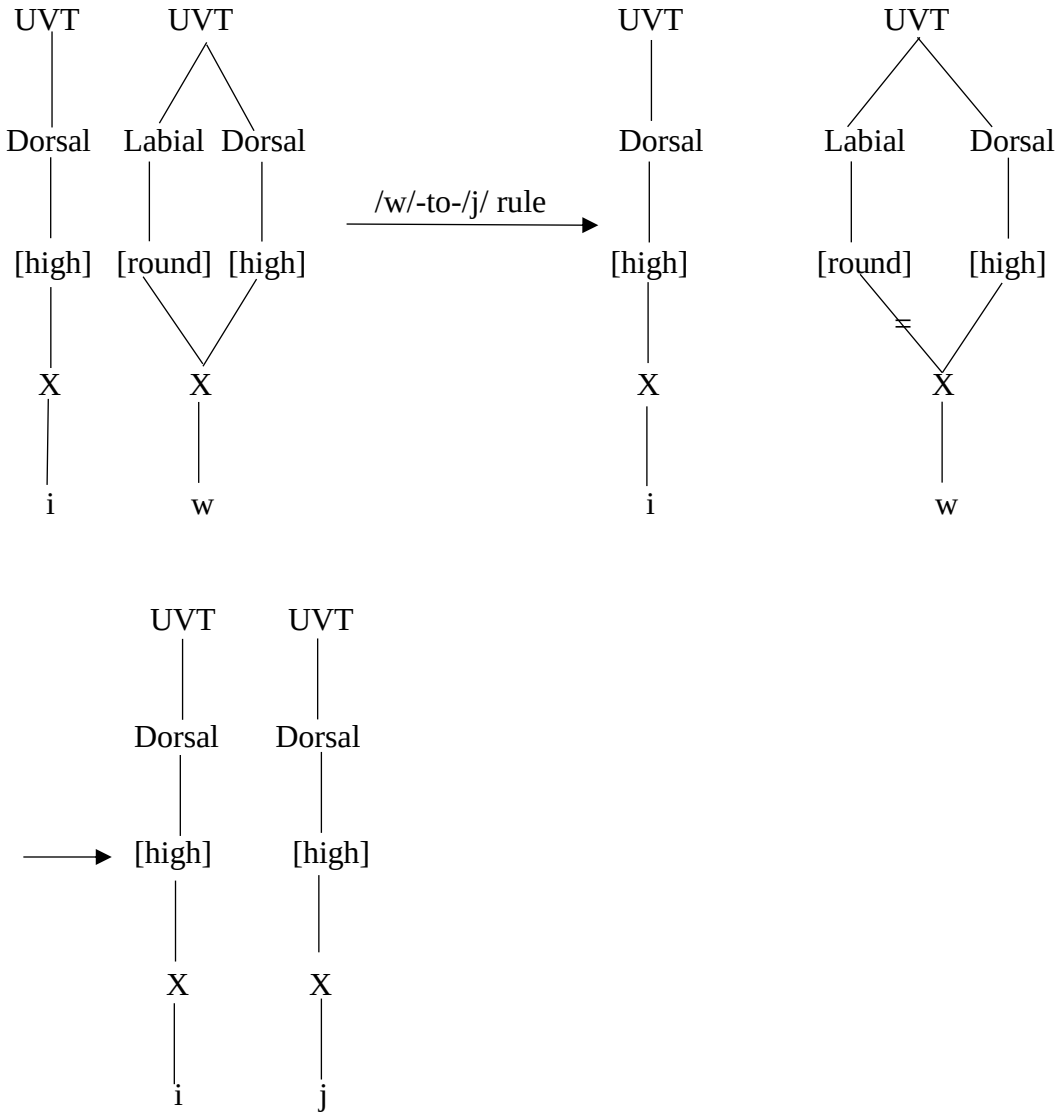
3.8.



As presented in 3.8, the partial assimilation of the /w/ to the /i/ is an instance of assimilation in roundedness because the former is a rounded sound as opposed to the latter. Delinking the feature [round] from the /w/ changes it to /j/ because these two glides differ only in their roundedness in the adopted model of feature geometry. The application of the /w/-to-/j/ rule to *qiwl-an* changes it to *qijl-an*. Subsequently, the /ij/ sequence in *qijl-an* undergoes the glide assimilation rule which changes it to /i:/ (*qijl-an → qi:l-an)*.

It is necessary to point out that changing the medial /w/ to /j/ when it is preceded by the vowel /i/ in VN patterns such as |$C_1iC_2C_3$+an|, |$C_1iC_2C_3$at+an|, |$C_1iC_2a:C_3$+an| and |$C_1iC_2C_3a:n$+an| is considered an instance of *ʔalʔiᶜla:l bilqalb* by Arab grammarians like Ibin Jinni (1954, 348), Shahin (1980, 187), Ibin Asfor (1987, 495) and Al-Samurrai (2013, 228). However, *ʔalʔiᶜla:l bilqalb* is an instance of substitution and there are no substitutions of sounds in the adopted approach of nonlinear phonology (cf. Altakhaineh and Zibin 2014, Altakhaineh and Alshamari 2016). Consequently, the alternation between the /w/ and /j/ in these VN patterns are proposed to be caused by a phonetically-motivated rule which changes the former glide to the latter through its partial assimilation to its preceding vowel, i.e. the /i/ vowel.

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The 2 doubly-weak VNs of the pattern |$C_1iC_2C_3$+an| are presented in Table 5.72 in the appendices. These two VNs, i.e. *ᶜijj-an* 'incapability, accusative/indefinite form' and *rijj-an* 'quenching, accusative/indefinite form', are of the shape |$C_1iG_2G_3$+an| which indicates that there are glides in their medial and final positions. As expected, neither of these VNs undergoes the glide assimilation rule, as stated in 3.4, because the |iG| sequence in them is followed by a glide which is a consonant that is not specified for feature [consonantal] (Spencer 1996, 141). The underlying and surface representations of the VN *ᶜijj-an* are derived by applying the ablaut and metathesis rule to its verbal stem *ᶜajj* and adding the /an/ suffix to the resultant form. In contrast with *ᶜijj-an*, the VN *rijj-an* has an underlying representation which is different from its surface representation. That is, the application of the ablaut and metathesis rules to the verbal stem *rwij* derives its underlying form *riwj-an*. This form is subjected to the /w/-fronting rule, as presented in 3.2, which totally assimilates the /w/ to its following /j/ and derives *rijj-an* from *riwj-an.*

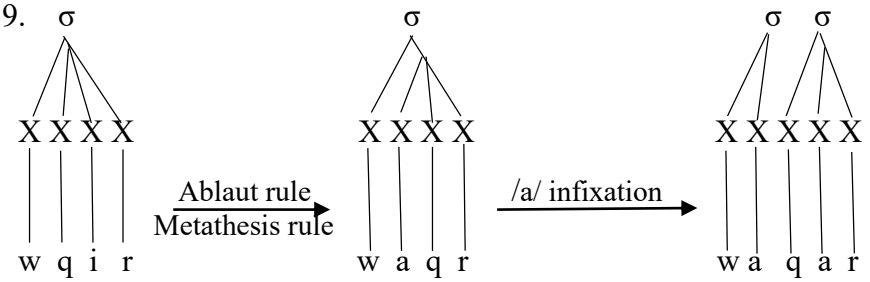
3.4. The derivation of weak VNs of the pattern |$C_1uC_2C_3$+an|

The 6 initially-weak and the 10 finally-weak VNs of the pattern |$C_1uC_2C_3$+an|, as listed in Table 5.9 and Table 5.51 in the appendices, respectively, are formed by the application of the ablaut and metathesis rules to their verbal stems and the suffixation of /an/ to the resultant forms. For instance, the finally-weak VN *luqj-an* 'encountering, accusative/indefinite form' is formed by applying the ablaut and metathesis rules to its verbal stem *lqaj* which yields *luqj* 'encountering'. Afterwards, the suffix /an/ is added to *luqj* to derive its accusative/ indefinite form. As for the 3 medially-weak VNs of this pattern, which are presented in Table 5.33 in the appendices, deriving them from their verbal stems requires applying the glide assimilation rule after the rules that derive their initially and finally weak counterparts. This can be exemplified by deriving the VN *dʒu:d-an* 'lavishness, accusative/indefinite form' from its verbal stem *dʒwud*. The application of the ablaut, metathesis and suffixation processes to this verbal stem derives *dʒuwd-an*. The /uw/ sequence in *dʒ**uw**d-an* undergoes the glide assimilation rule, as stated in 3.4, which changes this sequence to /u:/ and causes this VN to surface as *dʒu:d-an*.

3.5. The derivation of weak VNs of the pattern |$C_1aC_2aC_3$+an|

The 21 initially-weak VNs which are listed in Table 5.3 have the pattern |$C_1aC_2aC_3$+an|. These VNs are derived by applying the ablaut (GC**V**C→GC**a**C) and metathesis rules to their verbal stems (G**Ca**C→G**a**C**C**), inserting the infix /a/ between their second and third consonants (GaCC→GaC**a**C) and attaching the inflectional suffix /an/ to them (GaCaC→GaC**a**C-an). Deriving the VN *waqar-an* 'deafness, accusative/indefinite form' from its corresponding verbal stem *wqir*, i.e. the stem of the imperfective verb *ja-qir* 'he becomes deaf', is employed as an illustrative example in 3.9.

3.9.



The derivation of the 19 medially-weak VNs of this pattern, which are shown in Table 5.24 in the appendices, follow the same steps which are employed for forming their initially-weak counterparts. The glide in the underlying shape of these VNs, viz. |CaGaC+an|, occurs in an

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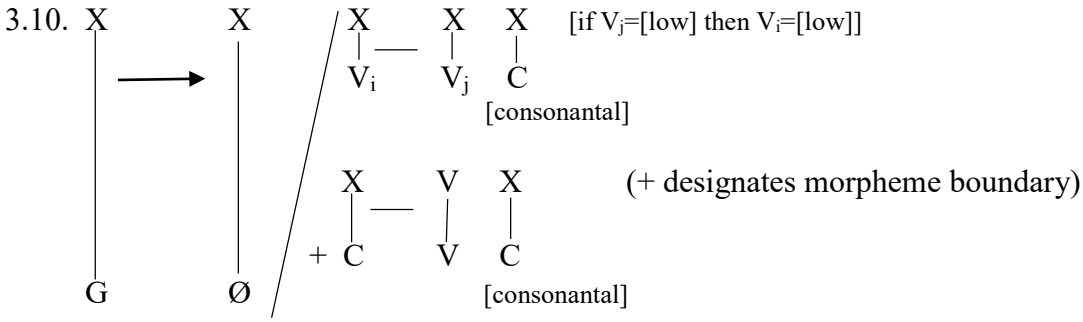
intervocalic position between two identical /a/ vowels. Hence, it should be deleted through the application of the glide elision rule, which is taken from Ali (2020, 114) and stated in 3.10.



Based on this rule, the glide which occurs between two vowels |V**G**V| undergoes the elision rule when the second vowel in this sequence is followed by a consonant specified for the feature [consonantal] except for the glides which are preceded by high vowels and followed by low vowels (cf. Brame 1970). The glide is also deleted when it occurs in a |C**G**V| sequence which is preceded by a morpheme boundary if the vowel in this sequence is followed by a [consonantal] consonant and the only consonants that lack specification for this feature are the glides (cf. Spencer 1996).

However, the glide in these VNs does not undergo the elision rule and it appears in their surface representations (e.g. *ha**w**as-an* 'obsession'). Resolving this inconsistency requires indicating that in all the cited instances of glide elision in derived nominal forms, the glide is not deleted if the |aGa| sequence constitutes a part of their stems. That is, the glide in |aGa| sequences in these forms is deleted only if it occurs in the final position of their stems and its following /a/ vowel occupies the initial position of the suffixes which are attached to these stems (cf. Brame 1970, Mahdain 1982). This is observed to be true for derived nominal forms but the |aGa| sequences which are parts of the stems of verbal forms (e.g. *n**a**wa**w**am→ n**a:**m* 'he slept') and non-derived nominal forms (e.g. *b**a**wa**w**ab→ b**a:**b* 'door') are found to undergo the glide elision rule. One can attribute the stability of certain |aGa| sequences to the assumption that the low vowel /a/ has no cognate glide and this delimits its interaction with its adjacent glides.

The glide elision rule which targets the |aGa| sequences in derived nominal stems is stated in 3.11 (a). This rule deletes the glides in derived nominal stems ((D) N-stems) when they are followed by a morpheme boundary and surrounded by two instances of /a/ vowel. Consequently, the medially-weak VNs of the pattern |C**a**C**a**C+an| do not undergo this rule because their medial glides are not followed by a morpheme boundary which entails that they do not occur in the final position of the stem.

The glide elision rule in 3.11 (a) can be integrated with the glide elision rule in 3.10 by introducing an additional modification to the first conditioning environment of the latter rule. This modification involves stipulating that the glide in the |aGa| sequences which occur in (D) N-stems is subjected to the glide elision rule if its following /a/ vowel is followed by a morpheme boundary. The re-statement of the glide elision rule with the additional modification to its first conditioning environment is presented in 3.11 (b).

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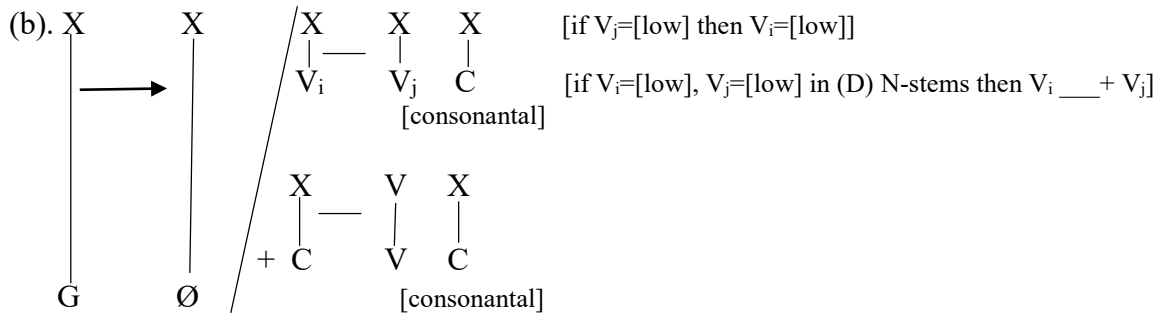
3.11. (a). G→Ø / a___+ a [(D) N-stems] (+ designates morpheme boundary)



The 40 finally-weak VNs of this pattern, which are presented in Table 5.45 in the appendices, have underlying representations of the shape |CaCaG+an| and surface representations of the shape |CaC+an|. The underlying representations of these VNs undergo the glide elision rule, as stated in 3.11 (b), because their final glide is placed in an intervocalic position between two /a/ vowels and is followed by a morpheme boundary (CaC**aG**+**a**n→ CaCa+an). The two adjacent /a/ vowels in the resultant form violate the OCP; hence they are merged into the single long vowel /a:/ (CaC**a**+**a**n→ CaC**a:**+n).The long vowel /a:/ in |CaC**a:**+n| is subjected to the vowel shortening rule which, as adopted from Brame (1970, 91) and presented in 3.12, shortens long vowels when they are followed by one consonant which occurs in the final position of the word.

3.12. V: → V/ _____ C # (# designates the word boundary)

A modification to this rule based on its employment in the literature can be implemented. That is, the stems which are believed to undergo the vowel shortening rule in the literature are found to be followed by a suffix which consists of one consonant (cf. Brame 1970 and Mahadain 1982). In other words, the consonant which follows the long vowels which are targeted by this rule is not part of the stem but part of a suffix which is added to the stem. Illustrative examples are presented in 3.13:

3.13: a. *da:^{c}i:-**n*** → *da:^{c}i-**n***'a caller' (the /n/ is the indefinite suffix)

b. *rama:-**t*** → *rama-**t*** 'she threw' (the /t/ is the feminine suffix)

On the other hand, the long vowels which are followed by a consonant which is considered part of the stem are not affected by the vowel shortening rule (e.g. *ma-ktu:b* 'written' and *qurra:?* 'readers'). In sum, all the long vowels that are subjected to this rule are followed by a consonant which is preceded by a morpheme boundary and followed by a word boundary. Based on this observation, the vowel shortening rule can be restated in 3.14.

3.14. V: → V/ _____ +C# (+ and # designate the morpheme and word boundaries, respectively)

The vowel shortening rule applies to the long vowel /a:/ in |CaC**a:**+n| because this vowel is followed by the indefiniteness suffix /n/ which is preceded by a morpheme boundary and followed by a word boundary (CaC**a:**+n→ CaC**a**+n) (e.g. *fada:+n→ fada-n* 'sacrificing, accusative/indefinite form'). As can be noted, the stems of these VNs appear to be biconsonantal but they are underlyingly triconsonantal. This serves as an additional confirmation to the hypothesis that there are no biconsonantal stems in MSA underlying representations and that these stems surface as biconsonantal stems through the application of certain phonological rules (cf. Brame 1970, Mahadin 1980). Proposing that the underlying representations of these biconsonantal VNs are triconsonantal, akin to their strong counterparts, enables accounting for their apparent irregular shapes and providing a more

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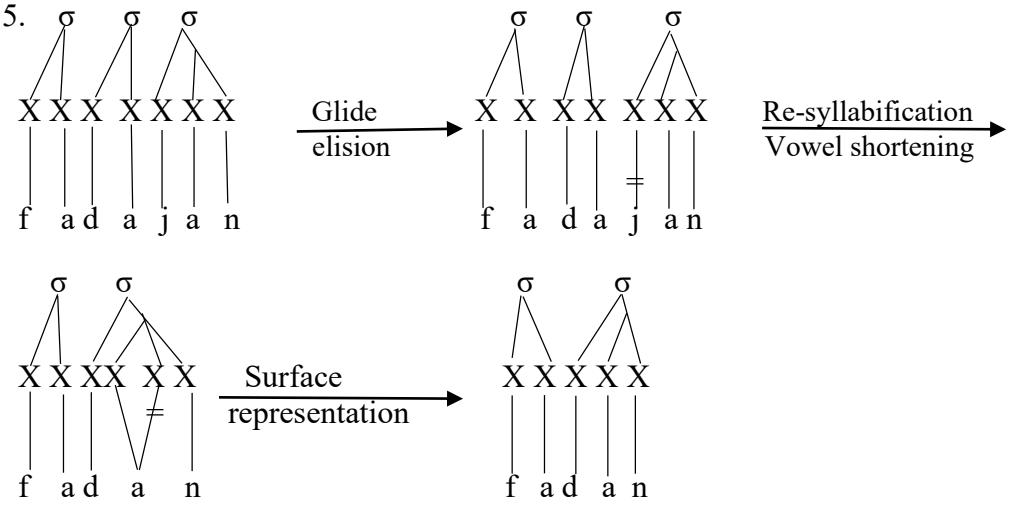
comprehensive account of the VNs of this pattern. The autosegmental representation of the derivation of the surface representation |CaCa+n| from its underlying representation |CaCaG+an| is exemplified by deriving *fada-n* 'sacrificing, accusative/indefinite form' from *fadaj-an* which is depicted in 3.15.

3.15.



The derivation of the surface representations of the 5 doubly-weak VNs, as listed in Table 5.69 in the appendices, of this pattern resembles that of their medially and finally weak counterparts. Accordingly, the medial glide of these VNs does not undergo the glide elision rule because it is part of their stems, whereas the final glide undergoes this rule. For instance, the doubly-weak VN *hawa-n* 'passion, accusative/indefinite form' is derived from its underlying representation *hawaj-an* by applying the glide elision rule to its final glide, i.e. the /j/ (*hawa**j**-an* → *hawa-an*), merging the two adjacent /a/ vowels into the long vowel /a:/ (*haw**a**-**a**n*→ *haw**a**:-n*) and applying the vowel shortening rule to this long vowel (*haw**a**:-n*→ *haw**a**-n*).

3.6. The derivation of weak VNs of the pattern |$C_1iC_2aC_3$+an|

There are one medially-weak, 9 finally-weak and one doubly-weak VNs of the pattern |$C_1iC_2aC_3$+an|. These are listed in Table 5.37, 5.54 and Table 5.75 in the appendices, respectively. Similar to their counterparts of the pattern |$C_1aC_2aC_3$+an|, the derivation of the underlying representation of these VNs involves applying the ablaut (CC**V**C→CC**i**C) and metathesis rules to their verbal stems (C**Ci**C→ C**i**CC) and adding the infix /a/ (CiCC →CiC**a**C) and the suffix /an/ to them (CiCaC→CiCaC-**an**). The surface representation of the one medially-weak VN of this pattern, i.e. *ᶜiwadʒ-an* 'contortion, accusative/indefinite form', is the same as its underlying representation. Contrastively, the surface representations of the finally and doubly weak VNs of this pattern are derived from their underlying representations through the deletion of their final glide and the shortening of the resultant long vowel.

This can be exemplified by deriving the surface representation of the finally-weak VN *ɣina-n* 'richness, accusative/indefinite form' from it underlying representation *ɣinaj-an*. Firstly, the /j/ in *ɣina**j**-an* undergoes the glide elision rule, which is stated in 3.11 (b), because it meets its conditioning environment (*ɣina**j**-an*→ *ɣina-an*). Secondly, the two adjacent /a/ vowels become the single long vowel /a:/ to avoid the violation of the OCP (*ɣina**-a**n*→ *ɣina**:**-n*). Finally, the long vowel /a:/ is shortened by the application of the vowel shortening rule which is stated in 3.14 (*ɣina**:**-n*→ *ɣina**-n*).

3.7. The derivation of weak VNs of the pattern |$C_1uC_2aC_3$+an|

Forming the 4 finally-weak VNs of the pattern |$C_1uC_2aC_3$+an|, which are presented in Table 5.62 in the appendices, involves applying the same derivational processes that are employed for the formation of the finally-weak VNs of the patterns |$C_1aC_2aC_3$+an| and |$C_1iC_2aC_3$+an|. For example, the

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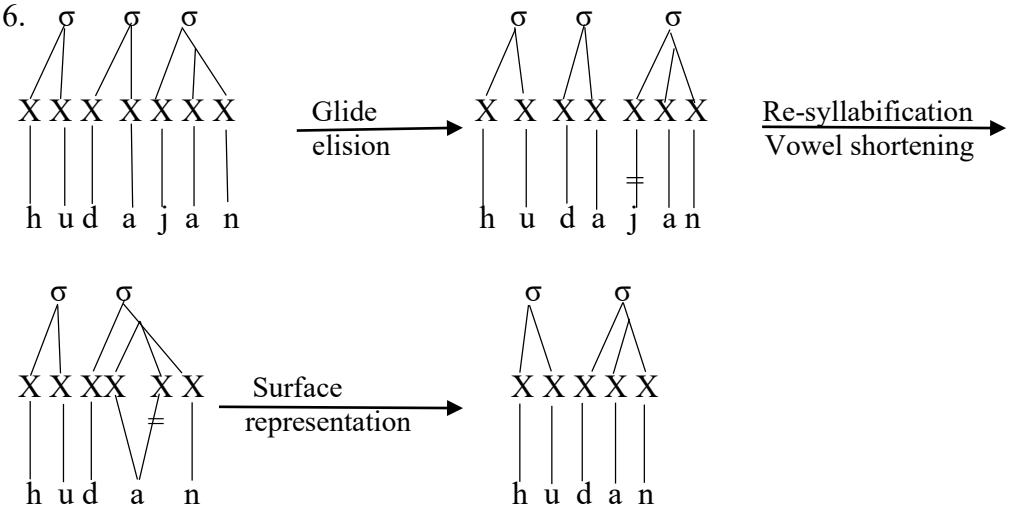
finally-weak VN *huda-n* 'guidance, accusative/indefinite form' is formed through the application of the ablaut and metathesis rules to it verbal stem *hdij*, i.e. the stem of its corresponding imperfective verb *ja-hdi:* 'he guides', which generates the sequence *hudj.* Afterwards, the infix /a/ and the suffix /an/ are added to this sequence (*hudj→ huda**j**-**an***). The glide /j/ in the underlying representation of this VN undergoes the glide elision rule (*huda**j**-an→ huda-an).* The two short adjacent / a/ vowels become the single long vowel /a:/ (*huda**-a**n→ huda**:-n***) and this vowel is subsequently subjected to the vowel shortening rule (*huda**:-n** → huda**-n***). The autosegmental representation of the derivation of the surface representation of the VN *huda-n* from its underlying representation is depicted in 3.16.

3.16.



3.8. The derivation of weak VNs of the pattern |$C_1iC_2i:C_3$+an|

The two weak VNs of the pattern |$C_1iC_2i:C_3$+an| are the finally-weak VNs *silijj-an* 'forgetfulness, accusative/indefinite form' and *ᶜitijj-an* 'excessiveness, accusative/indefinite form' which are listed in Table 5.64 in the appendices. The underlying representations of these VNs are derived through the application of the ablaut and the metathesis rules to their verbal stems and the addition of the infix /ij/ and the suffix /an/ to them. For example, the verbal stem of the VN *ᶜitijj-an*, i.e. *ᶜtuw*, undergoes the ablaut (*ᶜtuw→ ᶜtiw*) and the metathesis rules (*ᶜtiw→ ᶜitw*). Subsequently, the infix /ij/ (*ᶜitw→ ᶜitijw*) and the suffix /an/ (*ᶜitijw→ ᶜitijw-**an***) are added to the resultant sequence. The underlying representation of this VN, i.e. *ᶜitijw-an*, surfaces as *ᶜitijj-an* because the underlying /w/ in the former representation is subjected to the /w/-fronting rule, as stated in 3.2 (a) (*ᶜitij**w**-an→ ᶜitij**j**-an*).

It should be noted that the surface representations of these two VNs are of the shape |C_1iC_2ijj+an| instead of |$C_1iC_2i:C_3$+an|, which is the surface shape of their strong counterparts, because the infix /ij/ in these VNs is not targeted by the glide assimilation rule, as stated in 3.4. The glide assimilation rule affects the /ij/ and /uw/ sequences and changes them to /i:/ and /u:/, respectively, when they occur in the final position of the word or when they are followed by a non-glide consonant. i.e. a consonant specified for the feature [consonantal]. As can be observed, the infix /ij/ in these VNs is followed by a glide; thus it does not undergo the glide assimilation rule and it retains its underlying form. The autosegmental representation of the derivation of *ᶜitijj-an* from its verbal stem *ᶜtuw* is depicted in 3.17.

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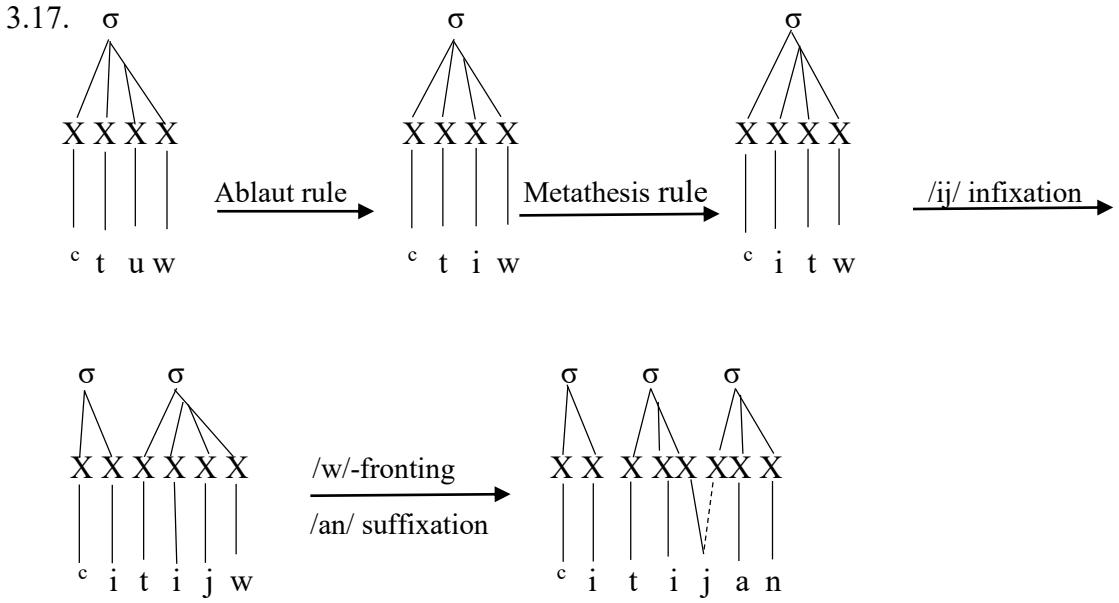

3.9. The derivation of weak VNs of the pattern |$C_1uC_2i:C_3$+an|

The underlying representations of the VNs of the pattern |$C_1uC_2i:C_3$+an| are formed through the application of the ablaut rule which changes the stem vowel of their verbal stems to /u/ (CC**V**C→ CC**u**C) and the metathesis rule which switches the positions of the stem vowel and the consonant that precedes it (C**Cu**C→ C**uC**C). Afterwards, the infix /ij/ is inserted between the second and third consonants of the resultant sequence (CuCC→ CuC**ij**C) and the suffix /an/ is added to the derived stems to decline them for their accusative/indefinite form (CuCijC→ CuCijC-**an**).

In the current corpus of VNs, there are 9 finally-weak and 9 doubly-weak VNs of this pattern. These VNs are listed in Table 5.53 and Table 5.67 in the appendices, respectively. The third radical of the finally and doubly weak VNs of this pattern is a glide (C_1uC_2ij**G**+an); thus the infix /ij/ in them is not subjected to the glide assimilation rule. For instance, the underlying representation of the doubly-weak VN *xuwijj-an* 'emptiness, accusative form' is the same as its surface representation because the infix /ij/ in this VN is followed by the glide /j/ which results in preventing it from undergoing the glide assimilation rule.

3.10. The derivation of weak VNs of the pattern |$C_1aC_2i:C_3$+an|

The underlying representations of the VNs that have the pattern |$C_1aC_2i:C_3$+an| are formed through the same derivational processes which are employed for forming their counterparts of the patterns |$C_1iC_2i:C_3$+an| and |$C_1uC_2i:C_3$+an|.The three finally-weak VNs of this pattern, which are listed in Table 5.63 in the appendices, are of the surface shape |CaCijG-an| (e.g. **ɣaʃijj**-an 'darkening, accusative/indefinite form') because their /ij/ infix is followed by a glide which prevents changing it to /i:/ through the glide assimilation rule. On the other hand, the 10 initially-weak VNs of this pattern, which are presented in Table 5.6 in the appendices, undergo the glide assimilation rule because the /ij/ infix in them is followed by a non-glide consonant (GaC**ij**C→ GaC**i:**C). The derivation of the initially-weak VNs of the pattern |$C_1aC_2i:C_3$+an| from their verbal stems is exemplified by the derivation of *wa^{c}i:d-an* 'promising' from *w^{c}id* which is depicted in 3.18.

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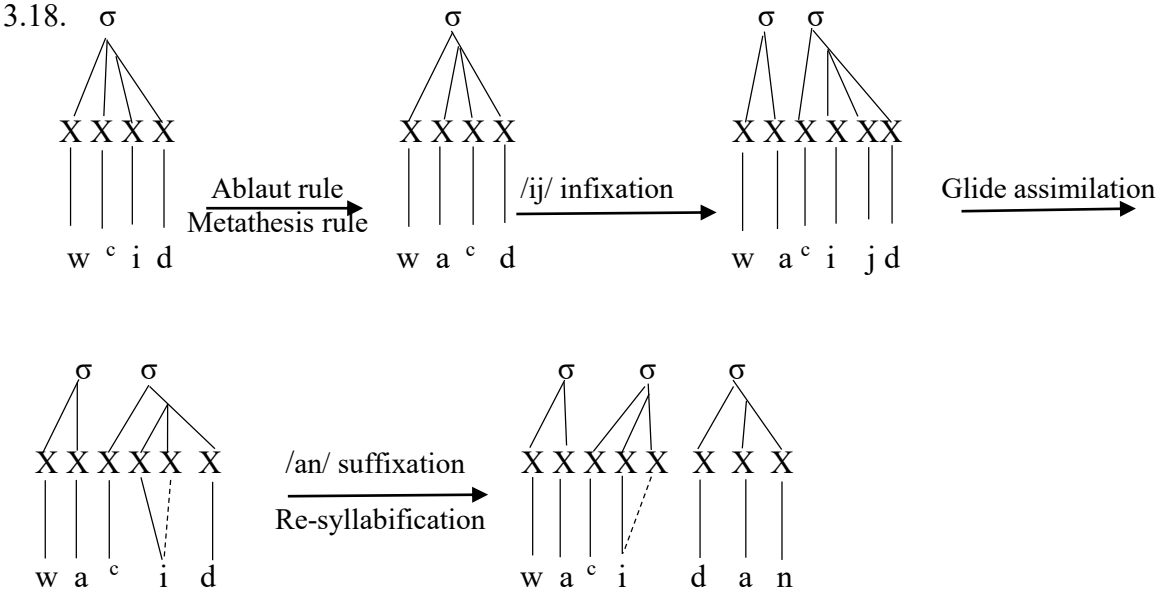
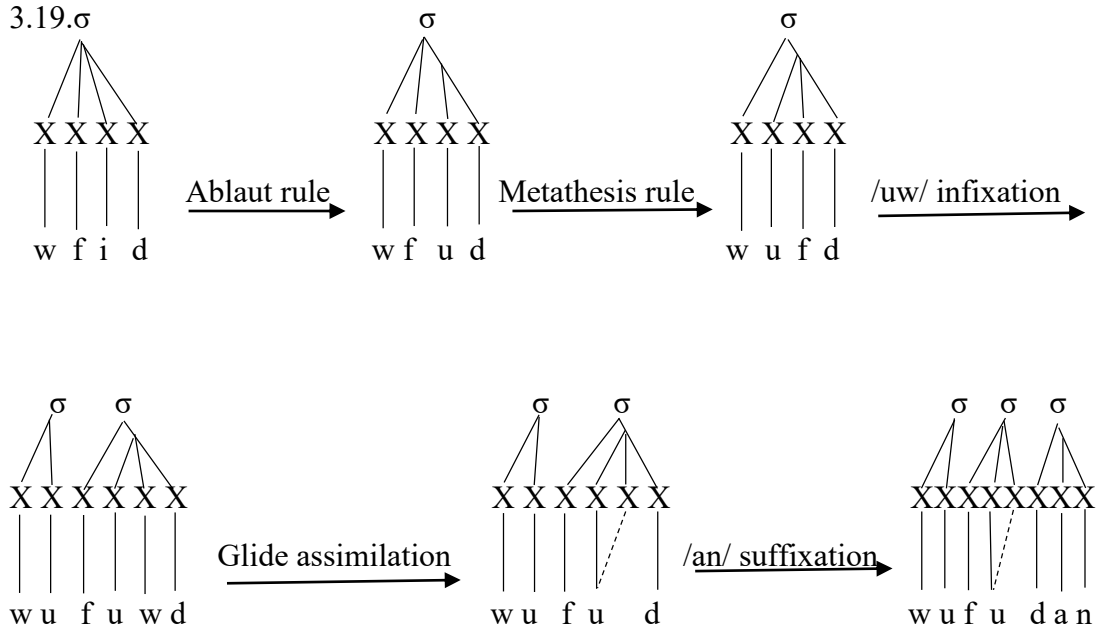
3.18.



3.11. The derivation of weak VNs of the pattern |$C_1uC_2u:C_3$+an|

The 31 initially-weak VNs which have the pattern |$C_1uC_2u:C_3$+an| are listed in Table 5.2. The derivation of these VNs involves, akin to their strong counterparts, applying the ablaut rule to change the stem vowel of their verbal stems to /u/. Subsequently, the metathesis rule switches the places of the stem vowel and its preceding consonant (C**Cu**C→ C**uC**C). Afterwards, the infix /uw/ is inserted between the second and third consonants of the stem (CuCC→ CuC**uw**C). This infix meets the conditioning environment for the glide assimilation rule which triggers the assimilation of its second member to its first member and results in forming the long vowel /u:/ (CuC**uw**C→ CuC**u:**C). Assuming that the long vowel /u:/ is underlyingly composed of the short vowel /u/ and its cognate glide /w/ is attributed to the appearance of the underlying sequence /uw/ in the finally-weak VNs of this pattern as will be shown shortly. The representation of the derivation of the VN *wufu:d-an* 'arriving/indefinite form' from *wfid,* as depicted in 3.19, is used as an illustrative example of the derivation of the initially-weak VNs of this pattern from their verbal stems.

3.19.



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In addition to the 31 initially-weak VNs of the pattern |CuCu:C+an|, there are 14 medially-weak VNs and 39 finally-weak VNs of this pattern. These are shown in Table 5.25 and Table 5.46 in the appendices, respectively. In accordance with the identity of the medial glide in their verbal stems, the medially-weak VNs of this pattern fall into two categories. The first category which has the /j/ as it medial glide follow the same derivational pattern of the initially-weak VNs. For instance, forming the VN *ʃuju:^{c}-an* 'spreading, accusative/indefinite form' from its verbal stem *ʃji^{c}* involves applying the ablaut and metathesis rules which forms *ʃuj^{c}*. The glide assimilation rule is then applied to the infix /uw/ which is added to *ʃuj^{c}* and this derives *ʃuju:^{c}* 'spreading'. Finally, the suffix /an/ is attached to *ʃuju:^{c}* to derive its accusative/ indefinite form *ʃuju:^{c}-an*.

As for the 5 medially-weak VNs that have the glide /w/ in their medial position, an additional rule is required for deriving their surface representation. That is, the application of the ablaut, metathesis, affixation and glide assimilation processes to these medially-weak VNs derives forms of the shape |Cuwu:C+an|. The /w/ in these forms surface as the glottal stop /ʔ/ and hence the surface representations of these VNs are of the shape |CuʔuːC+an| (e.g.*ruʔu:b-an* 'uncertainty, accusative/ indefinite form').

As can be noticed the /w/ in |C**uwu:**C+an| occurs between two instances of its cognate vowel /u/. Consequently, all the three members in the sequence /uwu:/ are phonetically similar which triggers the application of a dissimilation rule. Dissimilation rules are utilized for breaking the sequences of phonetically similar sounds due to the difficulty of their articulation (cf. Jensen 2004, 55; Durand 2014, 80). This can be done in two ways. The first is changing the feature specifications of a sound in phonetically similar sequences to make it less similar to its adjacent sounds and the second is eliminating a sound from these sequences.

In autosegmental phonology, dissimilation through changing the feature specifications of a sound is modeled as delinking a feature which is identical to an adjacent feature on a particular tier (cf. McCarthy and Smith 2003, 323). Consequently, the source and target of dissimilation rules are generally different in one feature in that delinking this feature changes the source of this process to its target. For example, dissimilation rules frequently dissimilate the /l/ to /r/ and the /m/ to /n/ because one feature is only used for distinguishing each of these pairs of sounds. That is, delinking the feature [lateral] from the /l/ changes it to /r/ and delinking the labial node of the /m/ changes it to /n/. Since the /w/ is phonologically distant from the /ʔ/, changing the former to the latter requires delinking a number of features, such as labial and dorsal, which affects the naturalness of this dissimilation process.

Turning the /w/ in the sequence /uwu:/into/ʔ/ can be accounted for by proposing that the application of the dissimilation rule to this sequence results in the deletion of its medial member, i.e. the /w/. The deletion of the /w/ causes its syllable to become onsetless which is not allowed in MSA. Therefore, the /ʔ/ is inserted to function as the onset of the onsetless syllable because this sound is commonly used to be fill empty onset positions in MSA (cf. Shahin 1980, Al-Nuri 2007). The application of the dissimilatory deletion and the glottal epenthesis rule to derive |CuʔuːC+an| from |Cuwu:C+an| is shown in 3.20.

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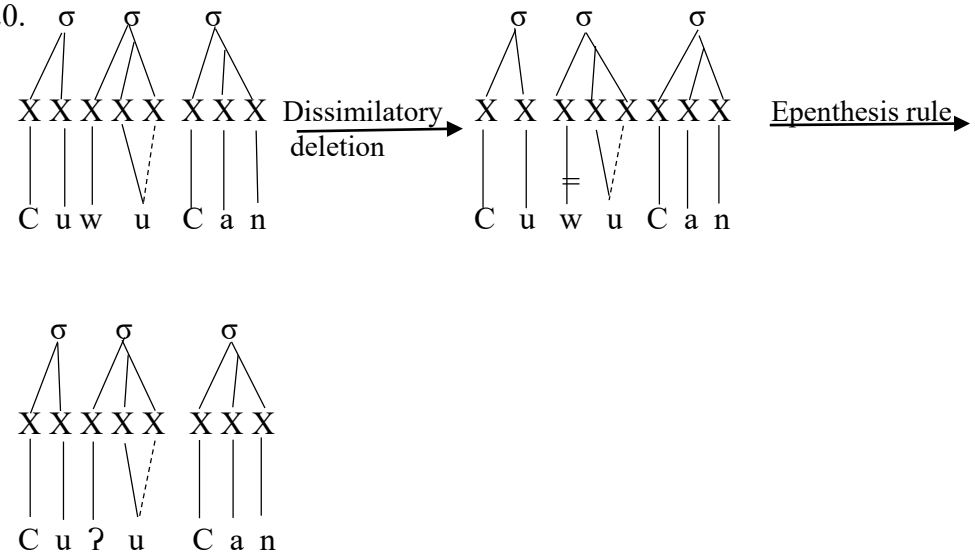
3.20.



As opposed to their medially-weak counterparts, the surface representations of the 39 finally-weak VNs of this pattern are the same as their underlying representations. The formation of these VNs involves applying the ablaut and metathesis rules to their verbal stems, which are all of the shape |CCVw|, and adding the infix /uw/ and the suffix /an/ to them. This is exemplified by deriving the VN *sumuww-an* 'rising up, accusative/indefinite form' from its verbal stem *smuw* by metathesizing the /u/ and the /m/ (s**mu**w→ s**um**w), inserting the infix /uw/ between the /m/ and /w/ *(sumw→ sum**uw**w)* and attaching the suffix /an/ to it *(sumuww →sumuww-**an**).*

It should be pointed out that all the verbal stems of the finally-weak VNs of this pattern, except for *dhaw* which is the verbal stem of the VN *duhuwwan* 'being in the forenoon', do not undergo the ablaut rule in the course of deriving their VN forms because their stem vowel, i.e. /u/, is the same as the stem vowel of this VN pattern. Moreover, these VNs are not subjected to the glide assimilation rule because the /uw/ sequence in them is followed by a glide.

3.12. The derivation of weak VNs of the pattern |$C_1iC_2u:C_3$+an|

There is one weak VN of the pattern |$C_1iC_2u:C_3$+an|. This VN, as presented in Table 5.39 in the appendices, is *ziju:h-an* 'displacing, accusative/indefinite form'. To derive *ziju:h-an* from *zjih*, i.e. the stem of its corresponding imperfective verb *ja-zi:h* 'he displaces', the vowel metathesis rule is first applied to switch the positions of the stem vowel and the consonant that precedes it (*zjih→ zijh*). Subsequently, the infix /uw/ is inserted between its second and third consonants (*zijh→ zijuwh*). This infix undergoes the glide assimilation rule and surfaces as /u:/ (*zijuwh→ ziju:h*). Finally, the suffix /an/ is added to this VN stem to derive its accusative/indefinite form (*ziju:h→ ziju:h*-an).

3.13. The derivation of weak VNs of the pattern |$C_1iC_2C_3$at+an|

The first radical of the 17 initially-weak VNs of the pattern |$C_1iC_2C_3$at+an|, which are listed in Table 5.4 in the appendices, is /w/. The underlying representations of these VNs are derived through subjecting their verbal stems to the ablaut and metathesis rules (CCVC$_{\rightarrow}$CC**i**C$_{\rightarrow}$C**i**CC). Afterwards, the suffix /at/, which is an integral part of this VN pattern, is added to |CiCC| to form |CiCC**at**| and the inflectional suffix /an/ is added to the resultant VN stem to derive its accusative/indefinite form |CiCCat+**an**|.

The underlying and surface representations of the initially-weak VN *wifrat-an* 'abundance, accusative/indefinite form' are both of the shape |wiC_2C_3at+ an|. On the other hand, the other 16 initially-weak VNs which have the underlying pattern |wiC_2C_3at+an| are of the surface shape |C_2iC_3at+an| (e.g. *wiznat-an →zinat-an* 'weight, accusative/indefinite form'). The deletion of the initial

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/w/ of the VNs that have the underlying shape |wiC$_2$C$_3$at+an| was indicated by Ibin Jinni (1957, 197) and Ibin Asfor (1987, 426) who attributed it to the occurrence of the letter /w/ in the initial position of a VN followed by the vocalic diacritic /i/. Consequently, the /w/ is deleted and its vocalic diacritic, i.e. the /i/, is moved to its following consonant through *ʔalʔiᶜla:l binnaql* which involves transporting the vocalic diacritic of a letter to another letter.

However, assuming that the /w/ is deleted because it occurs in the initial position of a VN and it is followed by the /i/ sound is not accurate. This is ascribed to the observation that there are many instances of /w/ which occur in this environment but are not deleted. For instance, the /w/ is not deleted when it occupies the initial position of VNs of the patterns |C$_1$iC$_2$a:C$_3$at+an| (e.g. ***wi**fa:dat-an* 'arrival, accusative/indefinite form'), |C$_1$iC$_2$a:C$_3$+an| (***wi**sa:l-an* 'connecting, accusative/indefinite form') and |C$_1$iC$_2$C$_3$a:n+an| (e.g. ***wi**ʤda:n-an* 'finding, accusative/indefinite form'). As can be noticed from these examples, the deletion of the /w/ does not takes place when the long vowel /a:/ is a constituent of the VN forms. On the other hand, the /w/ is regularly deleted when it occurs in the initial position of VNs of the patterns |C$_1$iC$_2$C$_3$+an| and |C$_1$iC$_2$C$_3$at+an| because the vowel /a:/ is not a constituent of their VN patterns. The /w/-deletion rule which takes place when the VN stems are of the shape |CiCC| and |CiCC+CV|, like |C$_1$iC$_2$C$_3$+at|, is stated in 3.21 (a).

The deletion of the /w/ in VN stems of these shapes results in leaving their syllable onsetless which is banned in MSA. Accordingly, the epenthetic consonant /ʔ/ is added to the VN stems of the shape |CiCC| to fill their empty onset positions. Contrastively, the empty onset position in the VN stems of the shape |CiCC+CV| is not filled through the addition of the /ʔ/, but rather a metathesis rule, which can be called the /i/-metathesis rule, is applied to fill this position by switching the places of the /i/ vowel and the consonant that follows it (~~**wi**~~**C**C+VC→ ~~**w**~~**Ci**C+VC). The /i/-metathesis rule is stated in 3.21 (b).

3.21. a. $$w \rightarrow \emptyset \,/\, +___iCC \begin{Bmatrix} +aC & \text{(+ designates morpheme boundary)} \\ ] & \text{( ] designates stem boundary)} \end{Bmatrix} \quad \begin{bmatrix} VNs \end{bmatrix}$$

b. $\$iCC+aC \rightarrow CiC+aC$ ($ designates syllable boundary)

The conditioning environment for the /w/-deletion rule in 3.21 (a) can be added to the one proposed by Mahadin (1982, 273) to form a general rule of /w/-deletion which is expressed in 3.22:

3.22. $$w \rightarrow \emptyset \begin{Bmatrix} \underset{\text{[personal prefix]}}{Ca+\text{--}C_2iC_3} \quad \text{[+B-verbs]} \quad \text{(+B=basic)} \\ +___\ iCC \begin{Bmatrix} +aC \text{ (+ designates morpheme boundary)} \\ ] \text{ ( ] designates stem boundary)} \end{Bmatrix} \quad \begin{bmatrix} VNs \end{bmatrix} \end{Bmatrix}$$

The derivation of the VNs that have surface representations of the shape |C$_2$iC$_3$at+an| from their underlying representations which are of the shape |C$_1$iC$_2$C$_3$at+an| is exemplified by deriving *θiqat-an* 'trust, accusative /indefinite form' from its underlying representation *wiθqat-an* as presented in 3.23.

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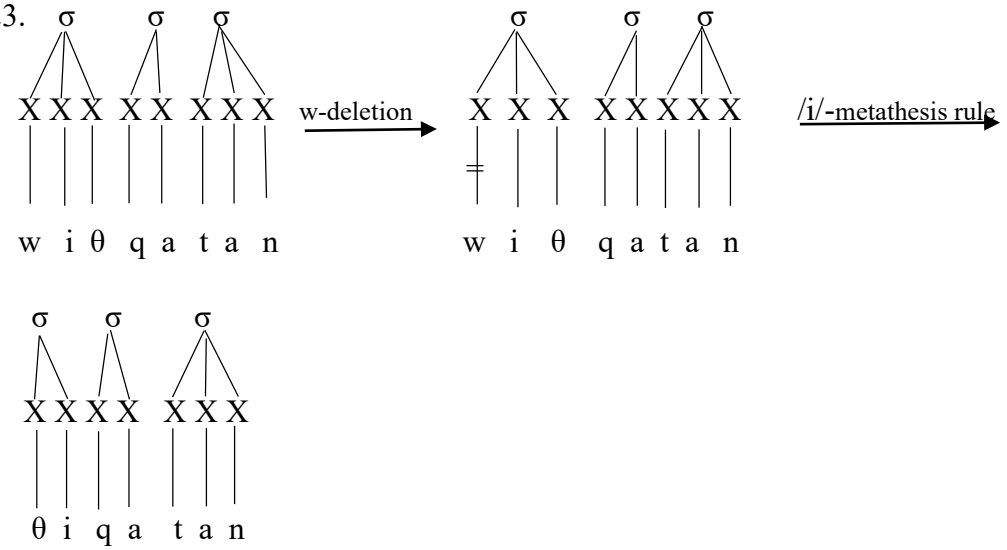
3.23.



The 10 medially-weak VNs which have the pattern |$C_1iC_2C_3at+an$| are listed in Table 5.26 in the appendices. The underlying representations of these VNs are of the shape |C_1iGC_3at+an| and their surface representations are of the shape |$C_1i:C_3at+an$| (e.g. *ri:bat-an* 'skepticism, accusative/indefinite form'). The surface representations of these VNs are derived from their underlying representations through the application of the glide assimilation rule, as stated in 3.4, which assimilates a glide to its preceding cognate vowel. This rule directly forms the surface representations of the 8 VNs which have the underlying shape |C_1ijC_3at+an| (e.g. *dʒ**ij**ʔat-an→ dʒ**i:**ʔat-an* 'coming, accusative/indefinite form').

However, this rule cannot apply to the 2 VNs which have the underlying shape |C_1iwC_3at+an| because the /w/ is not the cognate glide of the /i/. Consequently, the /w/ first partially assimilates to the /i/ through the application of the /w/-to-/j/ rule, as stated in 3.7, which changes the former to the cognate glide of the latter (e.g. *xi**w**fat-an→ xi**j**fat-an*). The outcome of the /w/-to-/j/ rule undergoes the glide assimilation rule which applies to |C**ij**Cat+an| and causes it to surface as |C**i:**Cat+an| (*xi**j**fat-an→ xi**:**fat-an* 'fearing, accusative/indefinite form').

As opposed to the initially and medially weak VNs of the pattern |$C_1iC_2C_3at+an$|, the surface representations of the 7 finally-weak VNs of this pattern, which are listed in Table 5.57 in the appendices, are the same as their underlying representations (e.g. *himjat-an* 'a diet, accusative/ indefinite form'). That is, the derivation of the surface representations of these VNs, akin to their strong counterparts, only requires applying the ablaut, metathesis and affixation processes. As for the 3 doubly-weak VNs of this pattern, which are presented in Table 5.73 in the appendices**,** the 2 of them which have glides in their initial and final positions exhibit the same derivational pattern of their initially and finally weak counterparts (e.g. *ʃijat-an* 'adorning, accusative/indefinite form').

On the other hand, the doubly-weak VN which has glides in its medial and final positions, i.e. *ni**j**jat-an* 'intention, accusative/indefinite form', does not adhere to the glide assimilation rule which targets its medially-weak counterparts. This is attributed to the observation the that /ij/ sequence in this VN is followed by a glide. The glide lacks the [consonantal] feature and this prevents the application of the glide assimilation rule to it. It should be noted that the glide that follows the /ij/ sequence in *nijjat-an* is underlyingly a /w/ which surfaces as a /j/ through the application of the /w/-fronting rule 3.2 (a).

3.14. The derivation of weak VNs of the pattern |$C_1aC_2C_3at+an$|

The 4 initially (e.g. *jaqaðat-an* 'waking up, accusative/indefinite form'), 20 medially (e.g. *ᶜawdat-an* 'returning back, accusative/indefinite form') and 18 finally weak (e.g. *qaswat-an* 'harshness,

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accusative/indefinite form') VNs which are listed in Table 5.10, Table 5.23 and Table 5.49 in the appendices, respectively, have underlying and surface representations of the shape |$C_1aC_2C_3at+an$|. The derivation of the underlying representations of these VNs, akin to their counterparts of the pattern |$C_1iC_2C_3at+an$|, requires applying the ablaut and metathesis rules to their verbal stems and adding the suffixes /at/ and /an/ to them. For example, deriving the underlying representation, which is the same as the surface representation, of the medially-weak VN *ᶜawdat-an* 'returning back, accusative/indefinite form' from its verbal stem *ᶜwud* involves changing its stem vowel to /a/ through the ablaut rule (*ᶜwud*→ *ᶜwad*), metathesizing this vowel and consonant that precedes it through the metathesis rule (***ᶜwa*d→ *ᶜa*wd**) and adding the suffixes /at/ (*ᶜawd* → *ᶜawd***at**) and /an/ to it (*ᶜawdat*→ *ᶜawdat-***an**).

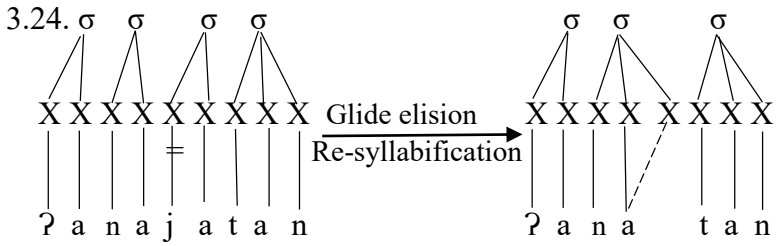
3.15. The derivation of weak VNs of the pattern |$C_1uC_2C_3at+an$|

The underlying representations of the VNs of the pattern |$C_1uC_2C_3at+an$| are formed in the same way as those of the pattern |$C_1aC_2C_3at+an$|. The only difference in the derivation of these two patterns is that the ablaut rule changes the stem vowel of the verbal stems of the VNs that have these patterns to /u/ and /a/, respectively. The 9 finally-weak VNs of the pattern |$C_1uC_2C_3at+an$|, which are presented in Table 5.56, have surface representations which are the same as their underlying representations (e.g. *ɣudwat-an* 'becoming, accusative/indefinite form'). On the other hand, the surface representation of the one medially-weak VN of this pattern, which is presented in Table 5.38 in the appendices, is different from its underlying representation in that the former representation is derived from the latter through the application of the glide assimilation rule (*dʒ**uw**dat-an→ dʒ**u:**dat-an* 'quality, accusative/indefinite form').

3.16. The derivation of weak VNs of the pattern |$C_1aC_2aC_3at+an$|

Forming the underlying representations of the VNs that have the pattern |$C_1aC_2aC_3at+an$| involves applying the ablaut and metathesis rules to their verbal stems (CCVC→ CC**a**C→ C**a**CC) and adding the infix /a/ and the suffixes /at/ and /an/ to them (CaCC→ CaC**a**C→ CaCaC**at+an)**. Deriving the surface representations of the 7 finally-weak VPs of this pattern, as shown in Table 5.58 in the appendices, requires subjecting their underlying representations to the glide elision rule which is stated in 3.11 (b). For example, the surface representation of the finally-weak VN *ʔana:t-an* 'slowing down, accusative/indefinite form' is derived from its underlying representation *ʔanajat-an* through the deletion of the /j/ because it is followed by a morpheme boundary and surrounded by two instances of the /a/ vowel. The deletion of the /j/ causes the appearance of two identical adjacent segments, i.e. two /a/ vowels, on the melody tier which is a violation of the OCP. Therefore, the two identical /a/ vowels become the single long vowel /a:/ as presented in 3.24.

3.24.



3.17. The derivation of weak VNs of the pattern |$C_1aC_2iC_3at+an$|

The 5 medially-weak VNs which are listed in Table 5.30 in the appendices have surface representations of the shape |$C_1a:C_3at+an$| (e.g. *ra:ḥat-an* 'comfort, accusative/indefinite form'). The three possible underlying patterns of these VNs might be |$C_1aC_2aC_3at+an$|, |$C_1aC_2uC_3at+an$| or

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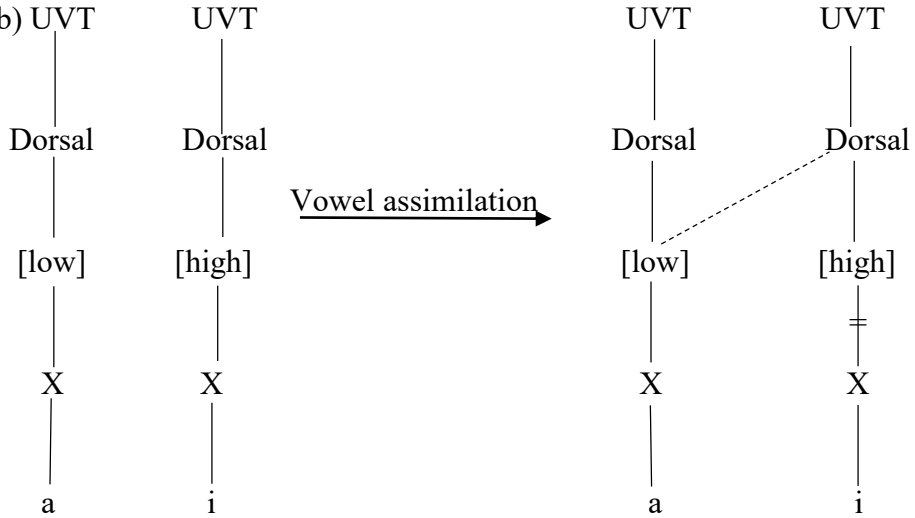
|$C_1aC_2iC_3at+an$|. Excluding the first possible pattern is based on the assumption that the glide in derived nominal stems is not deleted between two /a/ vowels unless when it is followed by a morpheme boundary. Based on this assumption, which is expressed in 3.11 (b), the medial glide in the pattern |$C_1a\mathbf{C_2}aC_3at+an$| is not affected by the glide elision rule. Accordingly, the surface representations of these VNs cannot be derived on the basis of this pattern. The derivation of the surface representations of these VNs requires postulating that the vowel after the medial glide in their underlying representations is a high vowel. This ascribed to noting that the glide in $|\mathbf{aG}\{\mathbf{u}_{\mathbf{i}}\}|$ sequences is deleted in derived nominal stems even if it is not followed by a morpheme boundary. The high vowel that follows the targeted glide is hypothesized to be /i/ and not /u/ because the list of the 44 possible VN patterns in MSA which is compiled by Wright (1986, 110-112) includes the pattern |$C_1\mathbf{aC_2i}C_3at+an$| (e.g. *sariqat-an* 'robbery, accusative/indefinite form') and not |$C_1\mathbf{aC_2u}C_3at+an$|.

The derivation of the underlying representations of the 5 medially-weak VNs that have the pattern |$C_1aC_2iC_3at+an$| involves applying the ablaut and metathesis rules to their verbal stems and adding the infix /i/ and the suffixes /at/ and /an/ to them. The underlying representations of these VNs surface as |$C_1a{:}C_3at+an$| due to the application of the glide elision rule to their medial consonant which is a glide positioned between the vowels /a/ and /i/ ($C_1a\mathbf{G}iC_3at+an \rightarrow C_1a\mathbf{\sout{G}}iC_3at+an$). The deletion of this glide produces the form |C_1aiC_3at+an|. The vowel /i/ in this form assimilates to the vowel /a/ through the vowel assimilation rule, as adopted from Mahadin (1982, 234) and stated in 3.16 (a), which assimilates a vowel to its preceding vowel. As presented in 3.16 (b), the representation of the assimilation of the /i/ to the /a/ within the feature geometry model involves spreading the feature [low] of the vowel /a/ to the /i/. This results in delinking the feature [high] from the latter vowel because a sound cannot be specified for the features [high] and [low] simultaneously due to conforming to universal default rules (cf. Spencer 1996). The output of vowel assimilation rule is a long vowel which is specified for the feature [low], i.e. the vowel /a:/, and it application to the form |$C_1\mathbf{ai}C_3at+an$| changes it to |$C_1\mathbf{a:}C_3at+an$|.

3.16. (a). $V_i \rightarrow V_j / V_j$___

3.16. (b)



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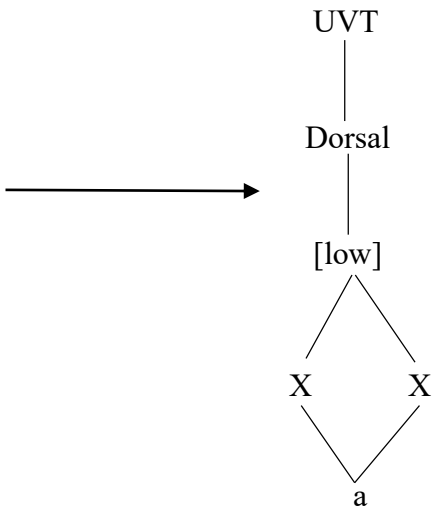
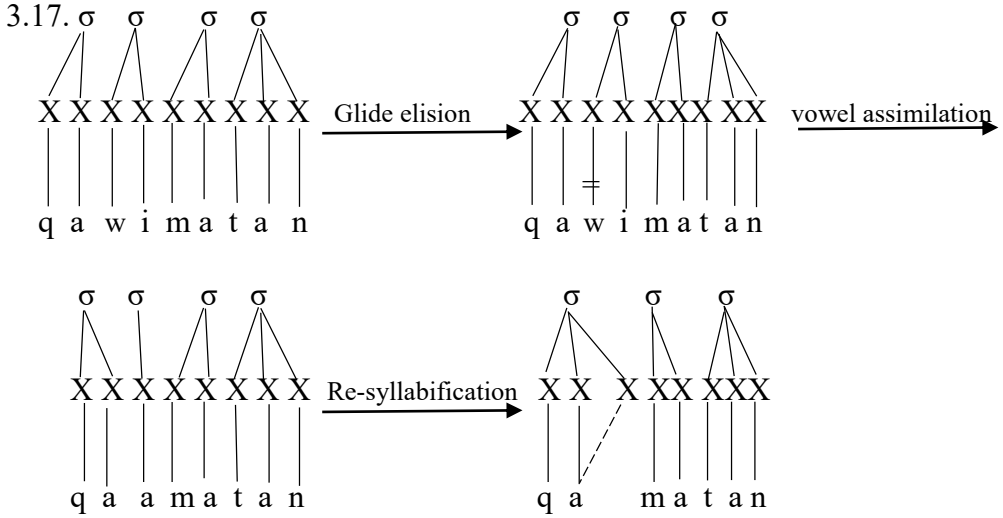


Forming the surface representations of the medially-weak VNs of the shape |C_1a:C_3at+an| from their underlying forms of the shape |C_1aC_2iC_3at+an| is exemplified by the formation of *qa:mat-an* 'stature, accusative/indefinite form' from *qawimat-an* which is shown in 3.17.



3.18. The derivation of weak VNs of the pattern |C_1aC_2a:C_3at+an|

The VNs of the shape |C_1aC_2a:C_3at+an| are formed by applying the ablaut (CC**V**C→ CC**a**C) and metathesis (C**Ca**C→ C**aC**C) rules to their verbal stems, inserting the infix /a:/ between their second and third radicals (CaCC→ CaC**a:**C) and attaching the suffixes /at/ (CaCa:C→ CaCa:C**at**) and /an/ to them (CaCa:Cat→ CaCa:Cat-**an**). Is should be noted that the underlying representation of the infix which is added to this VN pattern is assumed to be /a:/ instead of a combination of the short vowel /a/ and a glide, i.e. |aG| or |Ga|. Assuming that the vowel /a:/ is found in the underlying and surface representations of the VNs that have the pattern |CaCa:Cat-an**|** is based on the observation that the alteration between this vowel and the typical underlying representation of long vowels in MSA, i.e. a combination of a glide and a short vowel, cannot be phonologically accounted for in this VN pattern.

That is, suggesting that the underlying representation of the VN pattern |CaC**a:**Cat-an**|** is |CaC**aG**Cat-an| or |CaC**Ga**Cat-an| requires positing a rule which changes the underlying representation of this pattern to its surface representation. However, the |aG| and |Ga| sequences which are surrounded by consonants are generally stable in MSA which entails that they are not subjected to any phonological rules unless they violate a constraint on MSA syllable structure. One can notice that these sequences do not violate any of MSA constraints on syllable structure in this VN

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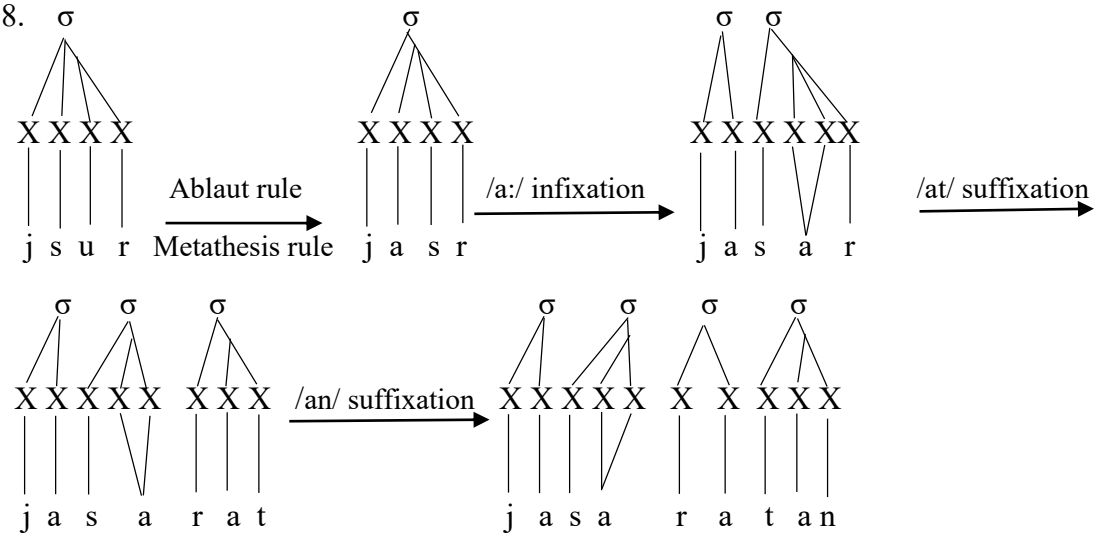
pattern which entails that they are stable in it. Since there is no phonological motivation for proposing that the underlying form of the vowel /a:/ in the VN pattern |CaC**a:**Cat-an| is a glide/vowel sequence, the surface and underlying forms of this vowel are suggested to be the same in this VN pattern.

Accordingly, in contrast with the long vowels /u:/ and /i:/ which only appear in the surface representations of linguistic forms in MSA, the long vowel /a:/ appears in the surface representations of some forms and in the underlying and surface representations of other forms in this variety of Arabic. For example, the vowel /a:/ only appears in the surface representation of the perfective verb *qa:m-a* 'he stood up, accusative case' due to the application of the glide elision rule to the underlying form of this verb (*q**awa**m-a→ q**aa**m-a→ q**a:**m-a*). On the other hand, the long vowel /a:/ appears in the underlying and surface representations of the VN *waqa:r-an* 'dignity, accusative/indefinite form' because there is no phonological reason for proposing that the underlying representation of this VN is different from its surface representation. The relative stability of the vowel /a:/, compared to /i:/ and /u:/, is ascribed to the assumption that the vowel /a/ has no cognate glide which makes it less susceptible to phonological alternations.

There are 12 initially-weak (e.g. *jasa:rat-an* 'easiness, accusative/indefinite form'), 18 finally-weak (e.g. *ɣaba:wat-an* 'stupidity, accusative/indefinite form') and 4 doubly-weak (e.g. *wala:jat-an* 'ruling', accusative/indefinite form') VNs of the pattern |C_1aC_2a:C_3at+an|. These VNs are listed in the appendices in Table 5.5, Table 5.50 and Table 5.71, respectively. The 12 initially-weak VNs that are of this pattern have surface representations which are the same as their underlying representations. This can be illustrated by deriving the VN *jasa:rat-an* 'easiness, accusative/indefinite form' from its verbal stem *jsur*. The derivation of this VN involves changing the stem vowel of its verbal stem to /a/ (*js**u**r→js**a**r*), metathesizing the stem vowel and the consonant that precedes it (*js**a**r→ j**a**sr*) and inserting the infix /a:/ between its second and third consonants (*jsar→jas**a:**r*) and the suffix /at/ to the resultant sequence (*jasa:r→ jasa:r**at**)*. Finally, the suffix /an/ is added to this VN stem to derive its accusative/indefinite form (*jasa:rat→ jasa:rat-**an**)*.

An interesting observation about the suffix /at/, which is an integral part of this pattern, is that it has two realizations, i.e./at/ and /ah/. This suffix is realized as /at/ when the VN pattern is followed by another suffix and it is realized as /ah/ when the VN pattern is not followed by other suffixes. Consequently, when the accusative/indefinite suffix /an/ is attached to the VN stem *jasa:rat,* this suffix is uttered as /at/. However, this VN surfaces as *jasa:rah* when it is uninflected, i.e. unfollowed by other suffixes. The representation of the derivational process of *jasa:rat-an* 'easiness, accusative/indefinite form' from its verbal stem *jsur* is depicted in 3.18.

3.18.



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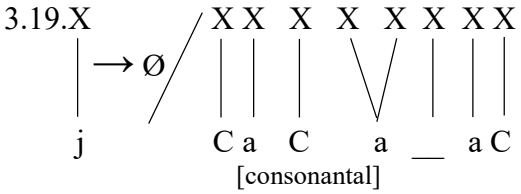
The 18 finally-weak VNs of the pattern |$C_1aC_2a:C_3at+an$| are divided into two categories. The first category consists of 14 VNs which have the underlying shape |$C_1aC_2a:$**w**at+an| and the second category includes 8 VNs of the underlying shape |$C_1aC_2a:$**j**at+an|. The underlying /j/ in the VNs of the second category is realized as a /w/ in their surface representations (e.g. *dara:**j**at-an* → *dara:**w**at-an* 'ferocity, accusative/indefinite form'). The surface representations of these VNs can be accounted for by postulating that the glide /j/ which occurs in the sequence |CaCa:jaC| undergoes a deletion rule which is stated in 3.19.



Stipulating that the consonant which precedes the long vowel /a:/ is specified for the feature [consonantal] is attributed to the observation that the doubly-weak VNs of this pattern do not undergo the /j/-deletion rule which is presented in 3.19. For instance, the underlying /j/ of the doubly-weak VN *hawa:**j**at-an* 'inclusion, accusative/indefinite case', which is derived from the verbal stem *hwij*, appears in the surface representation of this VN. Preventing this VN, and the other doubly-weak VNs of this pattern, from undergoing the /j/ deletion rule can be accomplished by proposing that the consonant which precedes the /a:/ vowel in the sequence |Ca**C**a:jaC| is a non-glide consonant, i.e. a consonant which is not specified of the feature [consonantal]. Moreover, hypothesizing that the non-glide consonant which precedes the vowel /a:/ in the sequence |C**aCa:**jaC| is in turn preceded by the vowel /a/ is ascribed to noticing that the underlying /j/ in the finally-weak VNs of the pattern |CiCa:Cat-an| do not undergo the /j/-deletion rule, For example, the /j/ in VN *rima:**j**at-an* 'shooting, accusative/indefinite form' is not subjected to this rule because the vowel which precedes the consonant /m/ in the sequence |r**im**a:jat| is not /a/.

The deletion of the /j/ in the VNs which have the underlying shape |$C_1aC_2a:$**j**at+an| through the /j/-deletion rule causes their third syllable to become onsetless (Ca**.**Ca:**.**jaC→ Ca**.**Ca:**.**aC). Onsetless syllable are banned in MSA; hence the /w/ is utilized for filling the empty onset position (Ca**.**Ca:**.**aC→ Ca**.**Ca:**.w**aC). The question as to why the /w/ can be used in sequences of the shape |CaCa:**G**aC|, whereas the /j/ cannot now arises. One can tentatively attribute this to the assumption that the glide /w/ is less similar to its surrounding /a/ vowels than the /j/ because it has a secondary articulation, i.e. lip rounding, which the /j/ and the /a/ lack.

As for the 14 VNs of the pattern |$C_1aC_2a:C_3at+an$| which have the underlying shape |$C_1aC_2a:$**w**at+an|, the surface representations of 9 of them are the same as their underlying representations (e.g. *qasa:**w**at-an* 'harshness, accusative/indefinite form'). On the other hand, the underlying /w/ in the other 3 VNs of this shape appears as an /ʔ/ in their surface representations ($C_1aC_2a:$**w**at+an→ $C_1aC_2a:$**ʔ**at+an). Interestingly, the three VNs which have the surface shape |$C_1aC_2a:$**ʔ**at+an| have alternative forms of the surface shape |$C_1aC_2a:$**w**at+an| which confirms that the glide /w/ can occur in sequences of the shape |CaCa:**G**aC| (e.g. *naqa:ʔat-an* and *naqa:wat-an* 'purity, accusative/indefinite form').

The alternation between the /w/ and the /ʔ/ in these VNs can be the result of the application of a rule which deletes the /w/ in sequences of the shape |CaCa:**G**aC| and inserts the /ʔ/ to fill the onset position which is left empty after the deletion of this glide (Ca**.**Ca:**.w**aC→ Ca**.**Ca:**.ʔ**aC). As can be noted, the /j/ and /w/ are deleted in sequences of the same shape, i.e. |CaCa:**G**aC|, which entails that their deletion rules have similar formats. Despite having similar formats, the /j/ and the /w/ deletion

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rule cannot be considered the same because the former is an obligatory rule which applies to the all the targeted sequences, whereas the latter is an optional rule which is responsible for variations in speech (see Jensen 2004 and Durand 2014 for the difference between obligatory and optional phonological rules).

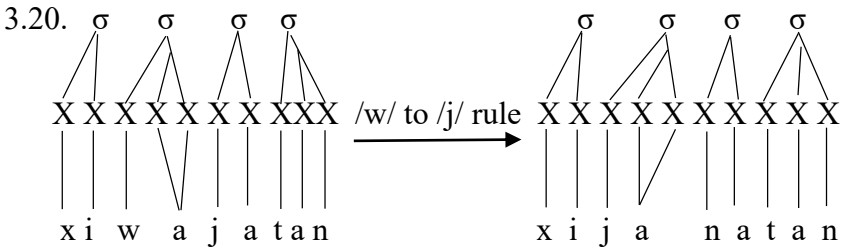
3.19. The derivation of weak VNs of the pattern |$C_1iC_2a:C_3at+an$|

There are 4 initially-weak, 25 medially-weak, 19 finally-weak and 6 doubly-weak VNs of the pattern |$C_1iC_2a:C_3at+an$|. These are listed in Table 5.11, Table 5.21, Table 5.48 and Table 5.68 in the appendices, respectively. The derivation of the underlying representations of these VNs involves applying the ablaut and metathesis rules to their verbal stems and adding the infix /a:/ and the suffixes /at/ and /an/ to them. For example, the underlying representation of the initially-weak VN *wira:θat-an* 'inheritance, accusative/indefinite form' is derived from its verbal stem *wriθ*, i.e. the stem of the imperfective verb *ja-riθ* 'he inherits', through metathesizing the stem vowel of *wriθ* and its preceding consonant (***wri***θ→***wir***θ) and adding the infix /a:/ (*wir*θ →***wira:***θ) and the suffixes /at/ and /an/ to it (*wira:*θ→ *wira:*θ***at-an***).

As can be noticed, the derivation of this VN does not require applying the ablaut rule to *wriθ* because the stem vowel of this verbal stem is the same as the stem vowel of the VN pattern |$C_1iC_2a:C_3at+an$|. Furthermore, these derivational steps form the VN *wira:θat-an* which means that the surface representation of this initially-weak VN, as well as the other initially-weak VNs of the pattern |$C_1iC_2a:C_3at+an$|, is the same as its underlying representation. It should be also noted that the underlying form of the infix /a:/ in this VN pattern is assumed to be the same as its surface representation because there are no phonological motivations for suggesting that this infix is underlyingly composed of a short vowel and a glide (See Section 3.18).

In contrast with the initially-weak VNs of the pattern |$C_1iC_2a:C_3at+an$|, the surface representations of the medially-weak VNs of this pattern are different from their underlying representations in that the underlying /w/ in these VNs is realized as /j/ in their surface representations (|C_1i**w**$a:C_3at+an$|→|C_1i**j**$a:C_3at+an$|). The alternation between the /w/ and the /j/ in these VNs is the result of undergoing the /w/-to-/j/ rule which is stated in 3.7. This rule targets the instances of the glide /w/ which occur in the sequence /i**w**/ and changes them to the cognate glide of their preceding vowel, i.e. the /i/. For instance, the /w/-to-/j/ rule is utilized for the derivation of the VN *xija:nat-an* 'betrayal, accusative/indefinite form' from it underlying representation *xiwa:nat-an* by partially assimilating the underlying /w/ to the vowel /i/ which results in changing the former to the cognate glide of the latter. This is depicted in 3.20.

3.20.



As for the finally-weak (e.g. *hima:jat-an* 'protection, accusative/indefinite form') and doubly-weak (e.g. *riwa:jat-an* 'narration, accusative/indefinite form') VNs of this pattern, they both have surface representations which are the same as their underlying representations. A problematic issue is that 4 of the 6 doubly-weak VNs of this pattern are of the shape |C_1iwa:jat+an|. The /w/ in these VNs is preceded by the vowel /i/; hence it should undergo the /w/-to-/j/ assimilation rule. However, the /w/ in these VNs does not undergo this rule which makes their surface representations identical to their underlying representations.

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Accounting for the surface representations of these VNs requires preventing them from undergoing the /w/-to-/j/ rule. The /w/-to-/j/ rule applies to the /iw/ and /uj/ sequences if they are followed by a consonant (e.g. *qi**w**l-an→ qi**j**l-an)*, a vowel (e.g. *xi**w**a:nat-an→ xi**j**a:nat-an*) or a morpheme boundary (*da:ᶜi**w**→ dw:ᶜi**j***). Accordingly, the environments in which this rule applies are very general. What can be done to prevent the doubly-weak VNs of the shape |C_1iwa:jat+an| from undergoing the /w/-to-/j/ rule is postulating that the /iw/ and /uj/ sequences which are followed by a vowel are targeted by this rule if the vowel in turn is followed by a non-glide consonant. Since the /iwa:/ sequence in the doubly-weak VNs of the shape |C_1**iwa:j**at+an| is followed by the glide /j/, these VNs do not undergo this rule and they retain their underlying representations. The restatement of the /w/-to-/j/ rule with the proposed modification to its conditioning environment is depicted in 3.21.

$$3.21.\ \begin{Bmatrix} w \\ j \end{Bmatrix} \rightarrow \begin{Bmatrix} j \\ w \end{Bmatrix} / \begin{Bmatrix} i \\ u \end{Bmatrix} __ \Big/ \begin{Bmatrix} C \\ VC[cons] \\ + \end{Bmatrix} \text{ (+ designates morpheme boundary)}$$

Another problematic issue with the /w/-to-/j/ rule is that the /iw/ and /uj/ sequences which are followed by a consonant are not only targeted by this rule but also by the vocalic assimilation rule, as taken from Brame (1970, 409) and presented in 3.22. The former rule changes these sequences to /ij/ and /uw/, respectively, by assimilating their second members to their first members, whereas the latter rule changes these sequences to /uw/ and /ij/, respectively, through assimilating their first members to their second members. Since one of the environments in which these two rules apply is phonologically the same, addressing this issue requires resorting to morphophonemics. The morphophonemic analysis of the types of stems to which these rules reveals that some stems such as the VN and AP stems are only subjected to the /w/-to-/j/ rule, while others such as the PP stems are only targeted by the vocalic assimilation rule. However, validating the hypothesis that each of these rules apply to specific types of stems requires testing it on a variety of nominal and verbal stems in MSA.

$$3.22.\ \begin{Bmatrix} u \\ i \end{Bmatrix} \rightarrow \begin{Bmatrix} i \\ u \end{Bmatrix} / __ \begin{Bmatrix} j \\ w \end{Bmatrix} C$$

3.20. The derivation of weak VNs of the pattern |$C_1aC_2a:C_3$+an|

The underlying representations of the 76 weak VNs of the pattern |$C_1aC_2a:C_3$+an| are derived from their verbal stems through the applications of the ablaut rule which changes their stem vowel to /a/ (CC**V**C→ CC**a**C), the metathesis rule which switches the places of the stem vowel and the consonant that precedes it (C**Ca**C→ C**aC**C) and the addition of the infix /a:/ (CaC→ CaC **a:**C) and the accusative/indefinite form suffix /an/ to them (CaCa:C→ CaCa:C -**an**). The 6 initially-weak (e.g. *waqa:r-an* 'dignity, accusative/indefinite form') and the 22 medially-weak (e.g. *haja:t-an* 'life, accusative/ indefinite form') VNs of this pattern, as listed in Table 5.8 and Table 5.22 in the appendices, respectively, have surface representations which are the same as their underlying representations.

On the other hand, the surface representations of the 42 finally-weak and the 5 doubly-weak VNs of this pattern, which are shown in Table 5.44 and Table 5.70 in the appendices, respectively, are different from their underlying representations. The underlying representations of these VNs are, akin to their initially and medially weak counterparts, of the shape |$C_1aC_2a:C_3$-an|. However, the glide which occupies the position of |C_3| in the underlying representations of the finally and doubly weak VNs of this pattern appears as the glottal stop /ʔ/ in their surface representations (e.g. *xawa:ʔ-an* 'emptiness, accusative/indefinite form').

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Arab grammarians, such as Shahin (1980, 177), Ibin Asfor (1987, 326) and Al-Samurrai (2013, 227), identified this as a case of *ʔalʔiʿla:l bilqalb* which involves substituting the glides with the glottal stop when they occur in the final position of the word preceded by an *ʔalif*, i.e. the long vowel /a:/. Subjecting the glides in this environment to *ʔalʔiʿla:l bilqalb* is attributed to the assumption that the glides are weak speech sounds and thus cannot occur in the final position of the word when they are preceded by another weak sound like the /a:/. Accordingly, they are substituted with a stronger sound, i.e. the glottal stop /ʔ/, when they occur in this position.

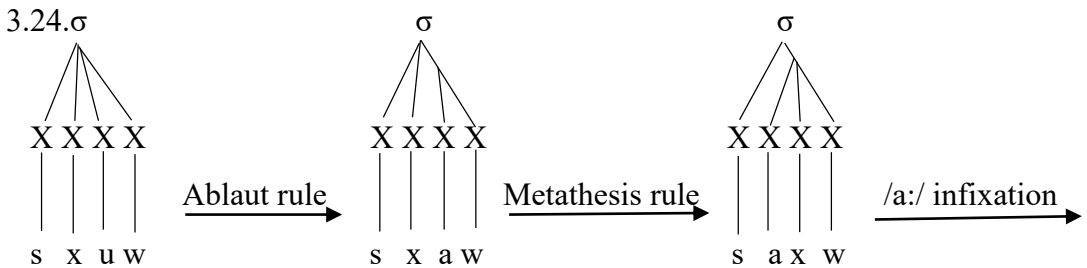
The alternation between the glides and the glottal stop in this VN pattern is not considered a case of substitution because a sound cannot be substituted with another in the adopted model of phonology. Moreover, this alternation cannot be caused by an assimilation or dissimilation process because the glides and the glottal stop are phonetically dissimilar sounds. Alternatively, this alternation can be accounted for by proposing that the glides which are preceded by the long vowel /a:/ and which occur in the final position of the stem undergo an elision rule (a:G→a:) . This rule can be called the |a:G| glide elision rule and it is stated in 3.23.

3.23. X → Ø / X X ___] (] designates stem boundary)
G a

The deletion of the glide from these VNs causes the appearance of the vowel /a:/ in the final position of their stems. The addition of the accusative/indefinite suffix /an/ to the stems that end with the long vowel /a:/ causes the appearance of the sequence /a:-an/. The syllable /an/ in this sequence is onsetless because it is preceded by the vowel /a:/ and not by a consonant. Because onsetless syllables are not allowed in MSA, a glottal stop is inserted to function as the onset of the onsetless syllable.

It is important to point out that the |a:G| glide elision rule does not target the weak VNs of the shape |CVCa:**G**at-an| (e.g. e.g. *hima:jat-an* 'protection, accusative/indefinite form') because their final glide is followed by the suffix /at/ which constitutes an integral part of the stems of these VNs. In other words, the final glide of the VNs of the shape |CVCa:**G**at-an| does not occur in the final position of these VN stems; thus it does not meet the conditioning environment for this elision rule.

The derivation of the surface representations of the finally-weak VNs that have the pattern |$C_1aC_2a:C_3$-an| from their underlying representations is exemplified by deriving *sa-xa:-ʔan* 'generosity, accusative /indefinite form' from its underlying form *saxa:w-an*. First, the glide /w/ in *saxa:w* is deleted because it is preceded by the long vowel /a:/ and it occurs in the final position of the stem. The addition of the accusative/indefinite suffix /an/ to this VN stem causes its last syllable to be onsetless. Since this violates a constraint on MSA syllable structure, the glottal stop is added to occupy the empty onset position. The autosegmental representation of the derivation of this VN from its verbal stem is depicted in 3.24.



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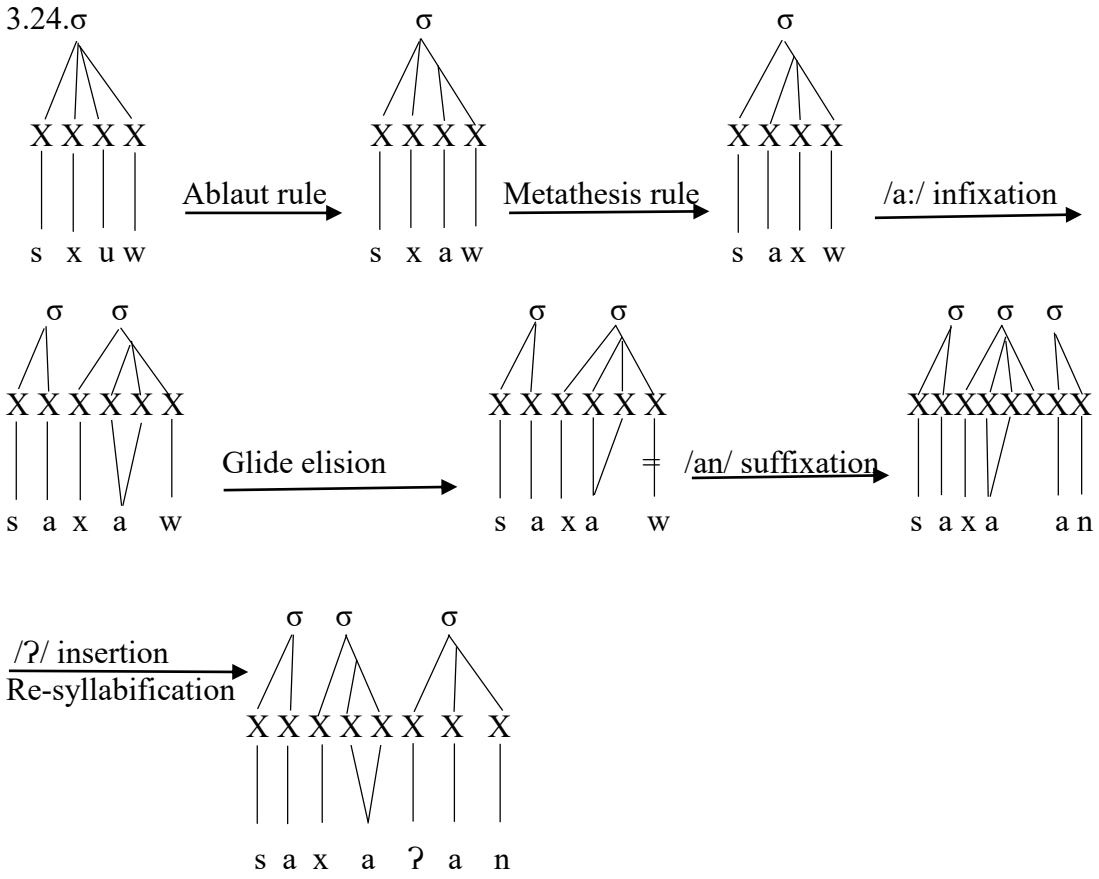

3.21. The derivation of weak VNs of the pattern |C₁uC₂a:C₃+an|

Similar to the VNs of the pattern |C₁aC₂a:C₃+an|, the underlying representations of the VNs that have the pattern |C₁uC₂a:C₃+an| are formed through the application of the ablaut and metathesis rules to their verbal stems and the addition of the infix /a:/ and the suffix /an/ to them. The 5 medially-weak VNs of this pattern have surface representations which are the same as their underlying representations (e.g. *fuwa:q-an* 'hiccup, accusative/indefinite form'). In parallel with the finally and doubly weak VNs of the pattern |CaCa:C-an|, the surface representations of the 8 finally-weak VNs and the doubly-weak VN of the pattern |CuCa:C-an|, which are presented in Table 5.55 and Table 5.74, respectively, are derived from their underlying representations through the deletion of their final glide and the addition of the glottal stop to fill in the empty onset position. For example, the derivation of the surface representation of the VN *du^{c}a:ʔ-an* 'prayer, accusative/indefinite form' from its underlying representation *du^{c}a:w-an* involves deleting the glide /w/ because it is preceded by the vowel /a:/ and it occupies the final position of the stem and this yields *du^{c}a:-an*. Subsequently, the glottal stop /ʔ/ in inserted between the vowels /a:/ and /a/ to function as the onset of the onsetless syllable (*du.^{c}a:.**an*→ *du.^{c}a:.ʔ**an***).

3.22. The derivation of weak VNs of the pattern |C₁iC₂a:C₃+an|

The underlying representations of the VNs that have the pattern |C₁iC₂a:C₃+an| are formed through the same derivational steps which are followed in the formation of their counterparts of the patterns |C₁aC₂a:C₃+an| and |C₁uC₂a:C₃+an|. The only difference in the formation of underlying representations of these 3 patterns is that the ablaut rule changes the stem vowel of their verbal stems to /i/, /a/ and /u/, respectively. As for the surface representations of the VNs of the pattern |C₁iC₂a:C₃+an|, the 28 medially-weak VNs of them, which are listed in Table 5.20 in the appendices, are divided into two categories.

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The first category consists of 8 VNs which have the glide /j/ as their medial radical. The surface representations of these VNs are the same as their underlying representations (e.g. *qija:s-an* 'measuring, accusative/indefinite form'). The second category of these VNs consists of 20 VNs which underlyingly have the glide /w/ as their medial radical. The underlying /w/ in these VNs is changed to /j/ in their surface representations through the application of the /w/-to-/j/ rule, as stated in 3.21, which partially assimilates the glide /w/ to the vowel /i/ by changing it to the cognate glide of this vowel, i.e. the /j/ (e.g. *siwa:m-an→ sija:m-an* 'e.g. fasting, accusative/indefinite form').

The /w/-to-/j/ rule applies to 17 of the 20 VNs that have the underlying shape |Ciwa:C-an|. The other three VNs do not undergo this rule which results in retaining their underlying shape (e.g. *siwa:k-an* 'brushing teeth with the Siwak, accusative/indefinite form'). Assuming that these 3 VNs do not undergo the /w/-to-/j/ rule because of the identity of one of their radicals is inaccurate. This is ascribed to the observation that some of them have two variant forms. One of these forms undergoes this rule and the other fails to do so (e.g. *lija:ð-an* and *liwa:ð-an* 'escape, accusative/indefinite form'). Accordingly, no phonological reasons can be provided for the failure of these VNs to undergo the /w/-to-/j/ rule.

As for the 21 finally-weak VNs of the pattern |$C_1iC_2a:C_3$+an|, which are listed in Table 5.47 in the appendices, they follow the same derivational pattern of their finally-weak counterparts of the patterns |CaCa:C-an| and |CuCa:C-an| in that their derivation from their underlying representations involves the deletion of their final glide and the addition of the glottal stop to occupy the empty onset position (e.g. *ʃifa:j-an→ ʃifa:-an→ ʃifa:ʔ-an* 'healing, accusative/indefinite form').

3.23. The derivation of weak VNs of the pattern |$C_1aC_2aC_3a:n$ +an|

The formation of VNs of the pattern |$C_1aC_2aC_3a:n$+an| involves applying the ablaut and metathesis rules to their verbal stems, inserting the infix /a/ between their second and third consonants and adding the suffixes /a:n/ and /an/ to them. The 9 initially-weak (e.g. *wadʒasa:n-an* 'fearing, accusative/indefinite form'), 56 medially-weak (e.g. *ðawaba:n-an* 'melting, accusative/ indefinite form'), and 9 finally-weak (*haðaja:n-an* 'delirium, accusative/indefinite form') VNs of this pattern are listed in the appendices in Table 5.7, Table 5.19 and Table 5.52, respectively. The surface representations of these VNs are the same as their underlying representations in that no additional rules are employed for driving the former from the latter.

It should be indicated that the |aGa| sequence in the medially-weak VNs of this pattern (e.g. *dawara:n-an* 'rotation, accusative/indefinite form') is not subjected to the glide elision rule, as stated in 3.11 (b), because the glide in this sequence is not followed by a morpheme boundary. The autosegmental representation of the derivation of the VNs that have the pattern |$C_1aC_2aC_3a:n$+an| from their verbal stems is exemplified by the derivation of the initially-weak VN *wadʒasa:n-an* 'fearing, accusative/indefinite form' from its verbal stem *wdʒis* which is depicted in 3.25.

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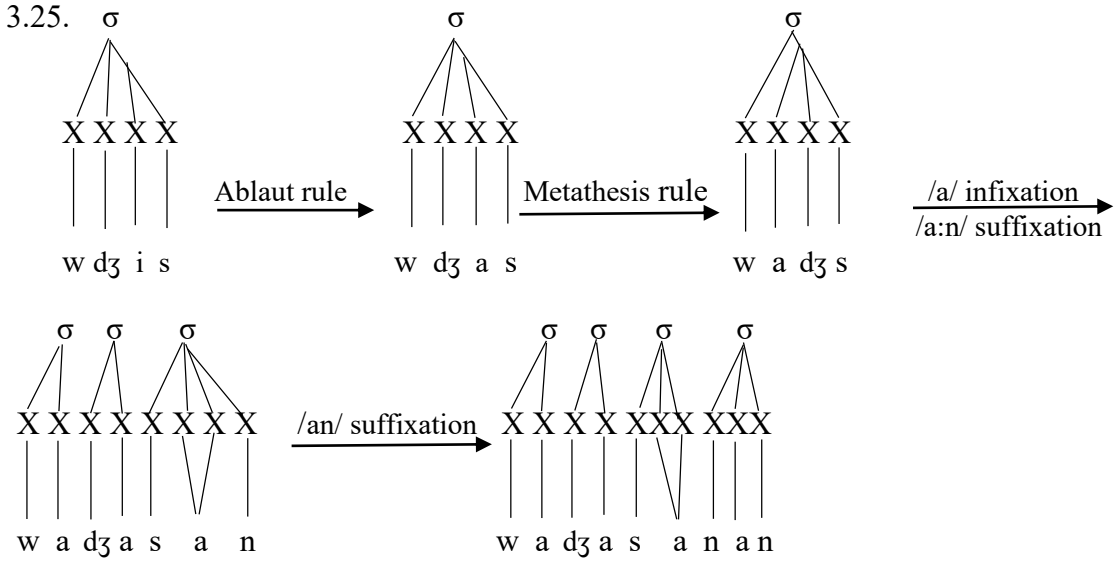
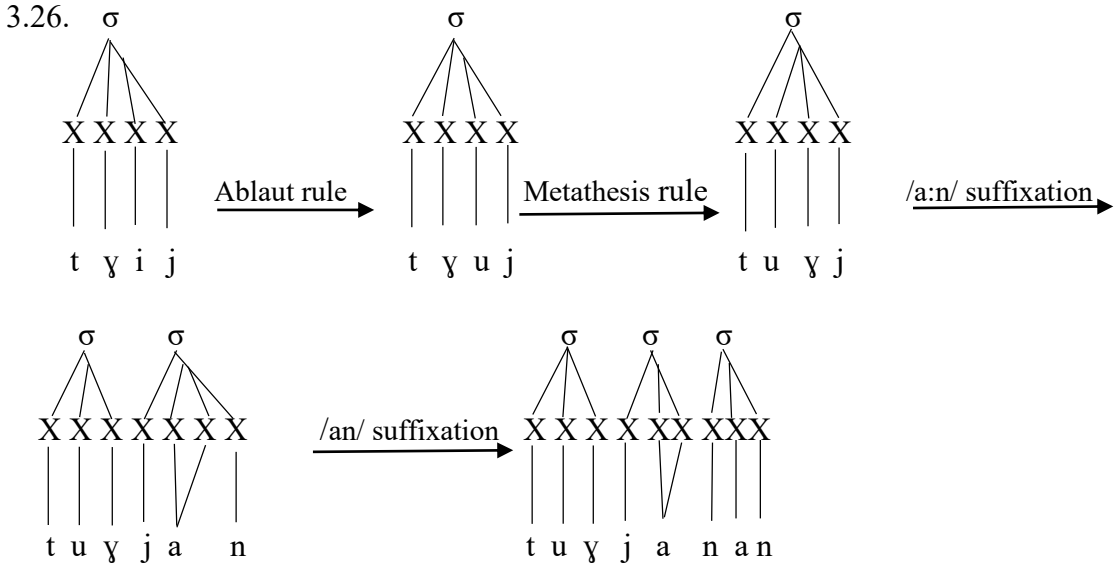


3.24. The derivation of weak VNs of the pattern |$C_1iC_2C_3a:n+an$|

There are one initially-weak (*widʒda:n-an* 'finding, accusative/indefinite form') and 5 finally-weak (e.g. *nisja:n-an* 'forgetting, accusative/indefinite form') VNs of the pattern |CiCCa:n+an|. These are presented in Table 5.15 and Table 5.60 in the appendices, respectively. These 6 VNs are derived through the application of the ablaut (CC**V**C→ CC**i**C) and the metathesis rules (C**Ci**C→ C**iC**C) to their verbal stems and the addition of the suffix /a:n/ to them (CiCC→CiCC**a:n**). Subsequently, the inflectional suffix /an/ is added to these VN to derive their accusative/indefinite forms (CiCCa:n→ CiCCa:n+**an**).

3.25. The derivation of weak VNs of the pattern |$C_1uC_2C_3a:n+an$|

The formation of the VNs of the pattern |$C_1uC_2C_3$a:n+an| requires applying the same rules that are utilized for forming the VNs of the pattern |$C_1iC_2C_3$a:n+an|. There are one initially-weak (*wuʃka:n-an* 'being imminent, accusative/indefinite form') and 6 finally-weak (e.g. *sulwa:n-an* 'forgetting, accusative/indefinite form') VNs of this pattern in the analyzed corpus. These VNs are presented in Table 5.16 and Table 5.59 in the appendices, respectively. The autosegmental representation of derivation of the finally-weak VN *tuɣja:n-an* 'tyranny, accusative/indefinite form' from its verbal stem *tɣij* is presented in 3.26 and used as an illustrative example of the derivational process of these VNs.



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3.26. The derivation of weak VNs of the pattern |ma+$C_1C_2iC_3at+an$|

There is only one weak VN of the pattern |ma+$C_1C_2iC_3$at+an|. This VN is the initially-weak VN *ma-wdʒidat-an* 'hatred, accusative/indefinite form' which is shown in Table 5.17 in the appendices. This VN is derived through the addition of the prefix /ma/ and the suffixes /at/ and /an/ to its verbal stem *wdʒid* (*wdʒid* → ***ma-wdʒidat-an***). As can be noted, the ablaut rule and the metathesis rules are not utilized for deriving this VN. The ablaut rule does not apply to this VN because the stem vowel of its verbal stem *wdʒid* matches the stem vowel of its VN pattern |ma+C_1C_2**i**C_3at+an|.

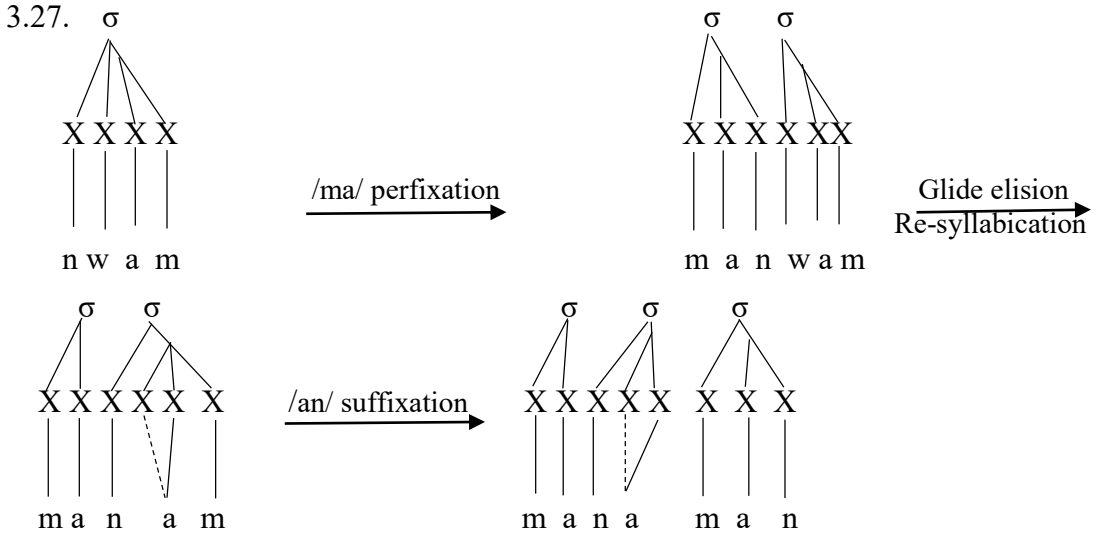
As for the metathesis rule, it does not apply to this VN for the reason that the prefix /ma/ is an integral part of this VN pattern. This causes the syllabification of the first consonant of this VN stem, i.e. the /w/, as the coda of the /ma/ syllable and the second consonant of this VN stem, i.e. the /dʒ/, as the onset of the following syllable (*ma**w.dʒ**i.da.tan*). Accordingly, these two consonants do not cluster in the onset position of the same syllable as in the other VN patterns which lack a prefix. This results in the avoidance of the violation of the constraint that prohibits the occurrence of complex onsets in MSA. As proposed in Section 3.2, the metathesis rule applies to the VN patterns that lack a prefix to prevent the violation of this constraint. Since this constraint is not violated in the VN patterns that have a prefix of the shape |CV|, such as |ma+$C_1C_2iC_3$at+an|, the metathesis rule does not apply to these patterns.

3.27. The derivation of weak VNs of the pattern |ma+$C_1C_2aC_3$+an|

The three medially-weak VNs of the pattern |ma+$C_1C_2aC_3$+an|, which are listed in Table 5.32 in the appendices, have surface representations of the shape |ma+C_1a:C_3+an|. The surface representations of these VNs are derived from their underlying representations through the deletion of their medial glide (ma+C_1**G**aC_3+an→ma+C_1**a**C_3+an) and the lengthening of its following vowel, i.e. the /a/, in compensation (ma+C_1**aG**C_3+an→ ma+C_1**a:**C_3+an). Two points should be indicated regarding this VN pattern. The first is that assuming that its underlying representation is |ma+$C_1C_2aC_3$+an| instead of |ma+$C_1aC_2aC_3$+an| is ascribed the assumption that the latter is not one of the VN patterns of MSA because the VN patterns which have a prefix as one of their integral constituents do not have a vowel between their first and second radicals (cf. Wright 1986, 110-112).

The second is that the deletion of the glide in this VN pattern is triggered by the application of the glide elision rule, as stated in 3.11 (b), because it meets its second conditioning environment. In accordance with this rule, the glide in sequences of the shape |+CGVC| is deleted and its following vowel is lengthened in compensation. The autosegmental representation of the derivation of *ma-na:m-an* 'dream, accusative/indefinite form' from its verbal stem *nwam,* i.e. the underlying stem of the verb *ja-na:m* 'he sleeps', is presented in 3.27 and used as an illustrative example of deriving the VNs of this pattern from their stems.

3.27.



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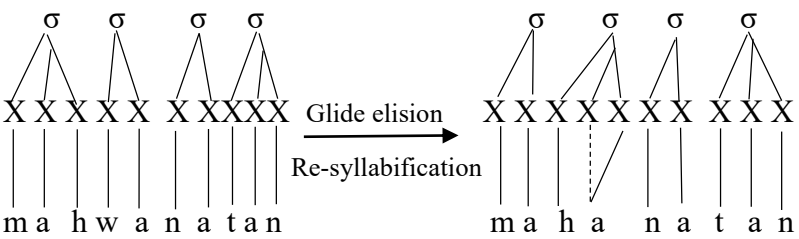
Similar to the VNs of the pattern |ma+$C_1C_2iC_3$at+an|, the derivation of the underlying representation of this VN, i.e. *ma-nawm-an*, does not require the application of the ablaut rule because the stem vowel of its verbal stem *nw**a**m* is /a/ which is the same as the stem vowel of this VN pattern. Moreover, the metathesis rule is not employed for the derivation of the underlying representation of this VN. This is due to the observation that the prefix /ma/ constitutes an integral part of this VN pattern which enables syllabifying the first consonant of this VN stem as the coda of the /ma/ syllable and the second consonant of this stem as the onset of the following syllable (*ma**n.w**a.man*). It should be also noted that the deletion of the glide in this VN pattern, as in *man.**w**a.man*, causes its second syllable to become onsetless. Because onsetless syllables are banned in MSA, a re-syllabification process is applied to fill in the empty onset position (*man.**w**a.man* →*man.**a:**.man*→*ma.**n**a:.man*). Re-syllabification processes apply to the output of a phonological rule when it does not conform to the constraints on syllable structures in the course of derivation to re-syllabify it in accordance with these constraints (Clements and Keyser 1983, 54; Mahadin 1994, 56).

3.28. The derivation of weak VNs of the pattern |ma+$C_1C_2aC_3$at+an|

The surface representations of the two-medially weak VNs of this pattern, which are shown in Table 5.34 in the appendices, are of the shape |ma+C_1a:C_3at+an|. These representations are derived from their underlying representations through the glide elision rule. The glide elision rule applies to the underlying representations of these VNs which are of the shape |ma+$C_1C_2aC_3$at+an|. This rule targets |C_2| of |ma+C_1**C_2**aC_3at+an| because it is a glide which occurs in a |+CGVC| sequence and causes the deletion of this glide and the lengthening of its following vowel in compensation. The derivation of *ma-ha:nat-an* 'affront, accusative/indefinite form' from its underlying representation *ma-hwanat-an* is used as an illustrative example in 3.28.

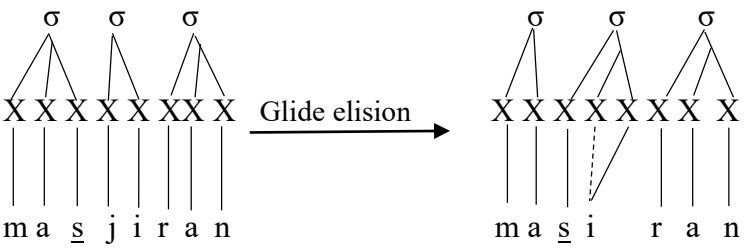
3.28.



3.29. The derivation of weak VNs of the pattern |ma+$C_1C_2iC_3$+an|

There is only one weak VN of the pattern |ma+$C_1C_2iC_3$+an|. This VN, which is presented in Table 5.42 in the appendices**,** has a surface representation of the shape |ma+C_1i:C_3+an|. The surface representation of this VN is derived from its underlying representation through the glide elision rule. The glide elision rule applies to *ma-s̲jir-an*, i.e. the underlying representation of this VN, and deletes the glide /j/ and lengthens its following vowel in compensation which causes it to surface as *ma-s̲i:r-an* 'destiny, accusative/indefinite form'. The autosegmental representation of the derivation of *ma-s̲i:r-an* from its underlying representation *ma-s̲jir-an* is depicted in 3.29.

3.29.



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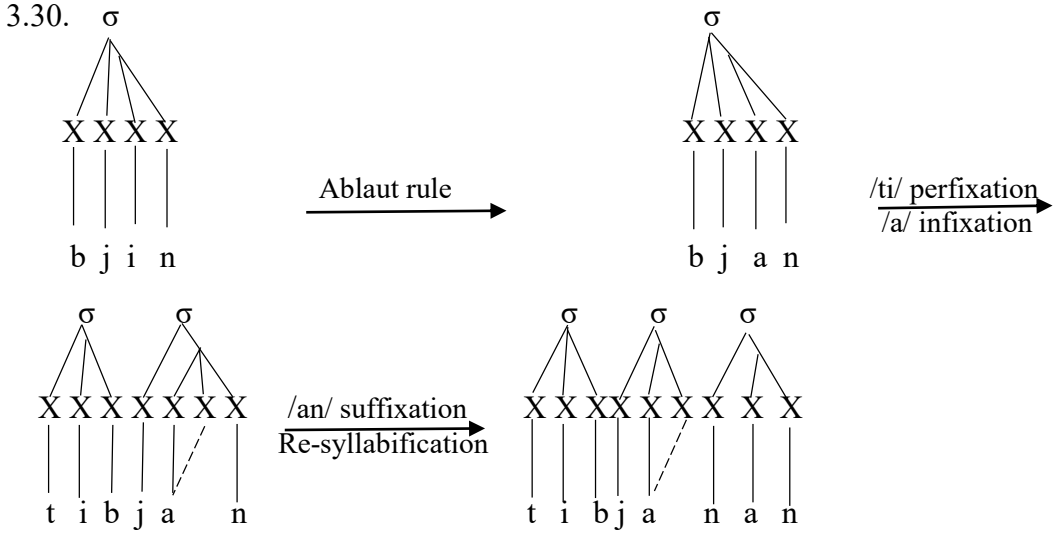
3.30. The derivation of weak VNs of the pattern |ti+C_1C_2a:C_3+an|

The derivation of the two medially-weak VNs of the pattern |ti+C_1C_2a:C_3+an|, which are listed in Table 5.35 in the appendices, from their verbal stems involves applying the ablaut rule to their verbal stems to change their stem vowel to /a/ (CC**V**C→ CC**a**C). This is followed by adding the prefix /ti/ and the infix /a/ to these stems (CCaC→ **ti**-CC**a**C) and attaching the accusative/indefinite form suffix /an/ to the resultant forms (ti-CCaC→ ti-CCaC-**an**). Since the OCP prohibits the occurrence of two adjacent identical vowels, the stem vowel /a/ and the infix /a/ become the single long vowel /a:/ (ti-CC**aa**C-an→ ti-CC**a:**C-an).

It should be observed that akin to the VN patterns that have the prefix /ma/, the vowel metathesis rule is not employed for the derivation of the VNs that have the prefix /ti/ (see Section 3.15). This supports the hypothesis proposed in Section 3.2 which predicts that the vowel metathesis rule is a phonologically-conditioned rule which applies to break up consonant clusters that occur in the onset position of the syllable in the VN patterns that lack a prefix. The autosegmental representation of the formation of the VN *ti-bja:n-an* 'clarification, accusative/indefinite form' on the basis of its verbal stem *bjin* is used as an illustrative example in 3.30.

3.30.



3.31. The derivation of weak VNs of the pattern |ta+C_1C_2a:C_3+an|

The two medially-weak VNs which are shown in Table 5.36 in the appendices are of the pattern |ta+C_1C_2a:C_3+an| (e.g. *ta-sja:r-an* 'walking, accusative/indefinite form'). These VNs are derived from their stems through the application of the ablaut rule (sj**i**r→ sj**a**r), and the addition of the prefix /ta/, infix /a/ and suffix /an/ to them (sjar→ **ta**-sj**a**r-**an**). As with the VNs of the pattern |ti+C_1C_2a:C_3+an|, the two contiguous /a/ vowels become the long vowel /a:/ in the VNs of the pattern |ta+C_1C_2a:C_3+an| to satisfy the OCP (ta-sj**aa**r-an→ ta-sj**a:**r-an).

3.32. The derivation of weak VNs of the pattern |C_1uC_2u:C_3at+an|

The formation of the underlying representations of the VNs that have the pattern |C_1uC_2u:C_3at+an| involves subjecting their verbal stems to the ablaut (CC**V**C→CC**u**C) and metathesis rules (C**Cu**C→ C**uC**C) and inserting the infix /uw/ (CuCC→CuC**uw**C) and the suffixes /at/ (CuCuwC→ CuCuwC**at**) and /an/ to them (CuCuwCat→ CuCuwCat-**an**). The 5 medially-weak and the 4 finally-weak VNs of this pattern are presented in Table 5.29 and Table 5.61 in the appendices, respectively. The surface representations of the medially-weak VNs of this pattern are derived from their underlying representations through applying the glide assimilation rule to the infix /uw/ which changes it to /u:/ (CuC**uw**Cat-an→ CuC**u:**Cat-an). For instance, the derivation of the surface representation of the medially-weak VN *luju:nat-an* 'flexibility, accusative/indefinite form' from its underlying

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representation *lujuwnat-an* involves changing the infix /uw/ to /u:/ through the glide assimilation rule (*luj**uw**nat-an*→ *luj**u:**nat-an*).

In contrast with their medially-weak counterparts, the glide assimilation rule is not utilized for the derivation of the surface representations of the finally-weak VNs of this pattern. This is ascribed to the observation that the /uw/ infix in these VNs is followed by a glide. As stated in 3.4, the glide assimilation rule only applies to the /uw/ and /ij/ sequences if they are followed by a non-glide consonant. Consequently, this rule does not target the finally weak VNs of this pattern because they have the underlying shape |CuC**uwG**at-an|. For example, the infix /uw/ in the finally-weak VN *ʔux**uw**wat-an* 'brotherhood, accusative/indefinite form' does not undergo the glide assimilation rule because it is followed by the glide /w/; thus the surface representation of this VN remains the same as its underlying representation.

3.33. The derivation of weak VNs of the pattern |C₁aC₂i:C₃at+an|

The derivation of the 3 weak VNs of this pattern involves applying the ablaut and metathesis rules to their verbal stems and adding the infix /ij/ between their second and third radicals and the accusative/indefinite suffix /an/ to them. In addition to these rules, the two initially-weak VNs of this pattern, which are listed in Table 5.14 in the appendices, undergo the glide assimilation rule which causes their infix /ij/ to surfaces as /i:/ (e.g. *waq**ij**ᶜat-an* → *waq**i:**ᶜat-an* 'incident, accusative/indefinite form'). On the other hand, the infix /ij/ in the finally-weak VN of this pattern *ʔað**ij**jat-an* 'harm, accusative/indefinite form', as shown in Table 5.65 in the appendices, does not undergo the glide assimilation rule because it is followed by the medial glide /j/ rather than by a sound that have the [consonantal] feature which results in retaining its underlying form.

3.34. The derivation of weak VNs of the pattern |C₁ajC₂C₃u:C₃at+an|

The 10 medially-weak VNs which are listed in Table 5.27 in the appendices have the surface shape |C₁aC₂C₃u:C₃at+an| (e.g. *dajmu:mat-an* 'permanence, accusative/indefinite form'). The underlying representations of these VNs are formed through the application of the ablaut and metathesis rules to their verbal stems (C₁C₂**V**C₃→ C₁C₂**a**C₃→ C₁**aC₂**C₃), reduplicating their third radical (C₁aC₂C₃→ C₁aC₂C₃**C₃**), inserting the infixes /j/ and /uw/ between their radicals (C₁aC₂C₃C₃→ C₁a**j**C₂C₃**uw**C₃) and adding the suffixes /at/ and /an/ to the resultant sequence (C₁ajC₂C₃uwC₃→ C₁ajC₂C₃uwC₃**at-an**).

Postulating that underlying representations of these VNs are of the shape |C₁ajC₂C₃uwC₃at-an| instead of |C₁aC₂C₃uwC₃at-an| is in conformity with Ibin Jinni (1954, 10-15). In order to clearly present his argument, it should be indicated that according to him, the infix /u:/ appears in the underlying and surface forms of these VNs. On the other hand, the underlying form of this infix is proposed to be /uw/ in the present study and it surfaces as /u:/ through the application of the glide assimilation rule. Accordingly, Ibin Jinni (1954) assumed that the underlying representations of these VNs are of the shape |C₁ajC₂C₃u:C₃at-an|.

He argued that the second radical, i.e. |C₂|, of the VNs of this pattern is a glide because all the VNs which have this pattern are medially-weak and maintained that the medial radical in the underlying representations of these VNs might be a /w/ or a /j/, even though this radical is always realized as a /w/ in their surface forms. This was attributed to the assumption that the glide /w/ in these VNs is subjected to *ʔalʔiᶜla:l bilqalb* which results in substituting it with a /j/ because it is preceded by the infix /j/ (C₁a**jw**C₃u:C₃at-an→C₁a**jj**C₃u:C₃at-an).

Ibin Jinni (1954) asserted that the form |C₁ajjC₃u:C₃at-an| was the surface form of these VNs in Old Arabic and cited a poem in which this form of these VNs was used in that variety of Arabic. This form was subsequently affected by a deletion rule which resulted in the deletion of its medial radical and this produced its current surface representation |C₁ajC₃u:C₃at-an|. The deletion of the /j/ from

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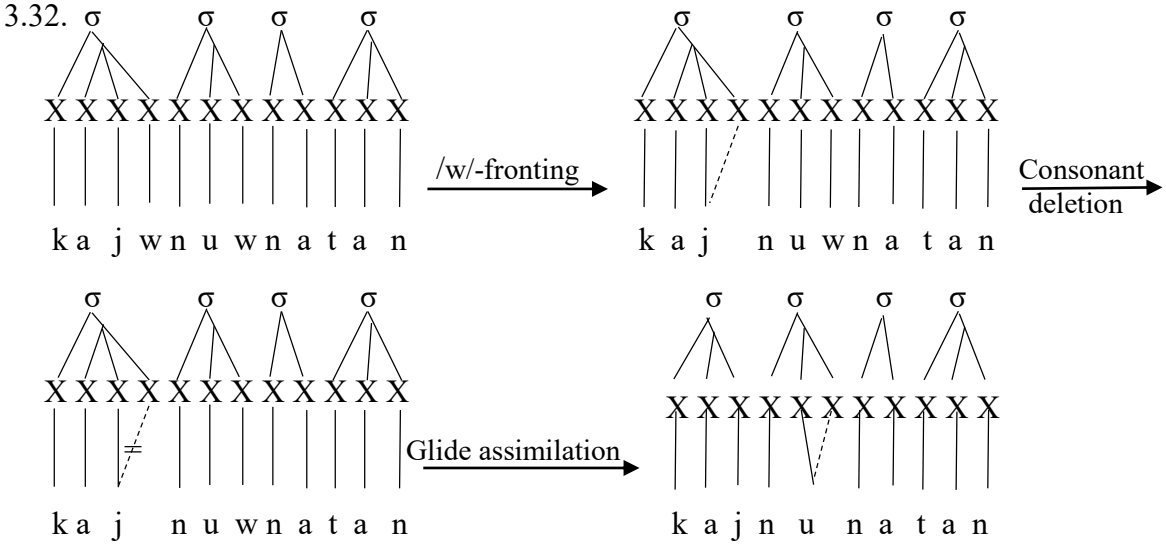
|C_1ajjC_3u:C_3at-an| can be straightforwardly accounted for in the adopted model of phonology because the consonant cluster |jjC_3| in this form is subjected to the consonant deletion rule, as stated by Brame (1970, 410) and shown in 3.31. This rule deletes the medial consonant from the consonant clusters which consist of three consonants (CCC→C∉C). Applying this rule to the sequence |jjC_3| results in the deletion of its medial /j/ and accounts for the surface form of |C_1ajjC_3u:C_3at-an|, i.e. |C_1ajC_3u:C_3at-an|.

3.31. C→Ø/ C__C

One can notice that Ibin Jinni's (1954) proposal is supported by historical evidence and it accounts for the alternations between the /w/ and the /j/ in this VN pattern, hence it is considered plausible in the present study. In line with this proposal, the underlying representation of the VN *kajnu:nat-an* 'existence, accusative, indefinite form' is assumed to be *kajwnuwnat-an.* The surface representation of this VN is derived from its underlying representation by assimilating the medial glide /w/ to the infix /j/ through the /w/-fronting rule ((*kaj**w**nuwnat-an*→ *kaj**j**nuwnat-an*), deleting the medial /j/ from the consonant cluster /**jj**n/ through the consonant deletion rule (*kajjnuwnat-an*→ *kajnuwnat-an*) and changing the infix /uw/ to /u:/ through the glide assimilation rule (*kajn**uw**nat-an*→ *kajn**u:**nat-an*). This is presented in 3.32.

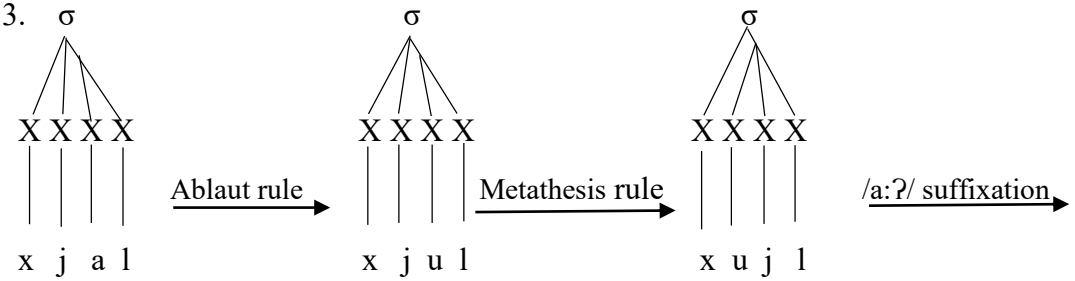
3.32.



3.35. The derivation of weak VNs of the pattern |C_1uC_2C_3a:ʔ+an|

The weak VN *xujla:ʔ-an* 'arrogance, accusative/indefinite form', which is presented in Table 5.40 in the appendices, has the pattern |C_1uC_2C_3a:ʔ+an|. The derivation of this VN from *xjal*, i.e. the verbal stem of its corresponding imperfective verb *ja-xa:l* 'he becomes arrogant', involves changing its stem vowel to /u/ through the ablaut rule (xj**a**l→xj**u**l), switching the places of the stem vowel and the consonant that precedes it through the vowel metathesis rule (x**ju**l→x**uj**l) and adding the suffixes /a:ʔ/ (xujl→xujl**a:ʔ** 'arrogance') and /an/ (xujla:ʔ→xujla:ʔ-**an** 'arrogance, accusative/indefinite form') to it. The autosegmental representation of this derivational process is presented in 3.33.

3.33.



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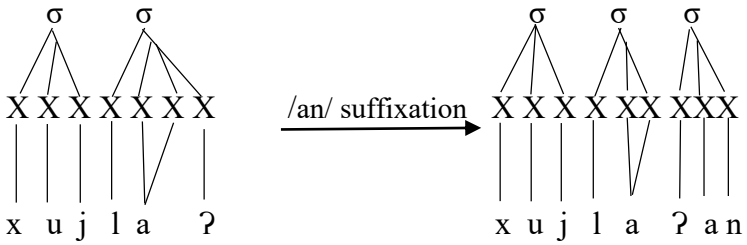
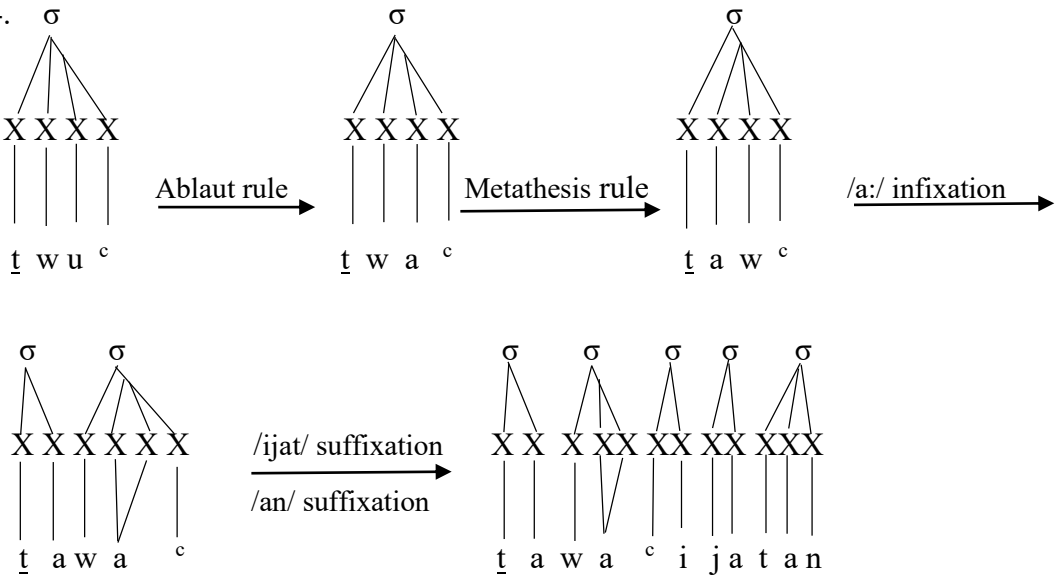


3.36. The derivation of weak VNs of the pattern |$C_1aC_2a:C_3ijat+an$|

There is one weak VN of the pattern |$C_1aC_2a:C_3ijat+an$|. This VN, as shown in Table 5.41 in the appendices, is the medially-weak VN *t̲awa:ᶜijat-an* 'willingness, accusative/indefinite form'. The verbal stem of this VN is *t̲wuᶜ*, i.e. the stem of the imperfective verb *ja-t̲u:ᶜ* 'he complies with'. To form this VN, its verbal stem undergoes the ablaut (t̲w**u**ᶜ→t̲w**a**ᶜ) and the metathesis rules (t̲w**a**ᶜ→t̲**aw**ᶜ) and the infix /a:/ (t̲awᶜ→t̲aw**a:**ᶜ) as well as the suffixes /ijat/ (t̲awa:ᶜ→t̲awa:ᶜ**ijat**) and /an/ (t̲awa:ᶜijat→t̲awa:ᶜijat-**an**) are added to it. The autosegmental representation of the derivation of *t̲awa:ᶜijat-an* is shown in 3.34.

3.34.



4. Conclusion

The present study examined the derivation of 1222 weak VNs from their verbal stems within the nonlinear approach of phonology. Even though the analyzed VNs have 35 VN patterns, the derivation of their underlying representations generally involves following the same derivational process. This process involves applying the ablaut and metathesis rules to their verbal stems and the addition of specific affixes to them. The surface representations of these VNs are derived from their underlying representations through the application of a set of rules, such as glide elision, vocalic assimilation, /w/-fronting and glide assimilation, which mainly target the glides in these VNs due to their instability in certain phonological environments.

This study shows that utilizing a corpus for the analysis of derivational processes enables providing a comprehensive and thorough account of them and establishing a regular derivational pattern of the forms to which they apply. That is, because of the various patterns that are employed for deriving VNs from triconsonantal verbs, most of the grammarians proposed that the derivational

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processes of these nouns are irregular in the sense that they follow no specific rules for their derivation (e.g. Al-Rajihi 1984, Al-Faxiri 1996, Al-Samurrai 2013). However, due to conducting this analysis on the basis of a corpus, a regular derivational pattern of these VNs is established.

The X-slot and feature geometry models of the nonlinear approach are proved to provide adequate and simple representations of the examined phonological processes. The autonomy given to elements on different tiers in the X-slot model of CV phonology enables providing a simple account of the phonological processes that target the analyzed VNs and the lack of specification of the timing slots in this model for the feature [±consonantal] enables accounting straightforwardly for the phonological processes, such as the glide assimilation process, where the timing slots of consonants attaches to vowels and vice versa.

The feature geometry model is found to offer a phonetically natural representation of the assimilation processes, such as the vocalic assimilation, /w/-to-/j/, vowel assimilation and /w/-fronting processes, which target the analyzed NVs in the course of their derivation. This is ascribed to the relative degree of independency given to phonetic features in this model which allows representing assimilation as a spreading process in which a feature from one segment is acquired by a neighboring segment or as a delinking process in which a feature is delinked from one segment to make it similar to a neighboring segment.

Reference list

1. Abd Al-Ghani, A. (2010), *ʔassarf ʔalka:fi [sufficient morphology],* Cairo: da:r ʔttawfi:qijjah liltura:θ.
2. Abdo, D. (2008), *ʔabha:θ fi: ʔalkalimah wa ʔaldʒumlah [studies in the word and the sentence],* Amman: da:r ʔalkarmil.
3. Al-Faxiri, S. (1996), *tasri:f ʔalʔfᶜa:l wa ʔalmasa:dir wa ʔalmuʃtaqqa:t [the inflection of verbs, verbal nouns and derived forms],* Cairo: ᶜasmi liʔannaʃir wa ʔattwzi:ᶜ.
4. Ali, E. and Mahadin, R. (2020), *A Non-linear Phonological Analysis of Weak Nouns Derived from Triconsonantal Verbs in Modern Standard Arabic.* Unpublished Doctoral Dissertation, University of Jordan, Amman, Jordan.
5. Ali, E. and Mahadin, R. (2020). An Autosegmental Analysis of the Derivation of Weak Active Participles from Triconsonantal Verbs in Modern Standard Arabic. *Journal of Language and Linguistic Studies,* 16 (4), 2130-2162.
6. Al-Nuri, J. (2007), *ᶜilm ʔalʔaswa:t ʔalᶜarabijjah [Arabic phonology],* Palestine: dʒa:miᶜat ʔalquds ʔalmaftu:hah.
7. Al-Samurrai, M. (2013), *ʔassarf ʔalᶜarabijj ʔahka:m wa maᶜa:ni [the rules and meanings of Arabic morphology],* Sharjah: da:r ʔibin kaθi:r.
8. Al-Takhaineh, A. and Zibin, A. (2014), Phonologically Conditioned Morphologically Process in Modern Standard Arabic: An Analysis of Al-Ibdal 'Substitution' in ftaʕal Pattern Using Prosodic Morphology. *International Journal of English Language and Linguistics Research,* 2, 1-16.
9. Al-Takhaineh, A. and Al-Shamari, M. (2016), A Re-examination of Al-ʔiᶜlaal in Arabic: An Autosegmental Approach. *Advances in Language and Literary Studies,* 7, 1-8.
10. Benmamoun, E. (1999), Arabic Morphology: The Central Role of the Imperfective. **Lingua**, 108,175-201.
11. Bin Muqbil, M. (2006), *Phonetic and Phonological Aspects of Arabic Emphatics and Guttural.* Unpublished Doctoral Dissertation, University of Wisconsin Madison, Wisconsin, USA.
12. Brame, M. (1970), *Arabic Phonology.* Unpublished Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, USA.
13. Clements, G. and Keyser, S. (1983), *CV Phonology: A Generative Theory of the Syllable,* Cambridge: The MIT Press.

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14. Clements, G. (1985), The Geometry of Phonological Features. *Phonology Yearbook,* 2, 225-252.
15. Davis, S. (1995), Emphasis spread and Grounded Phonology. *Linguistic Inquiry,* 26, 465–498.
16. Durand, J. (2014), *Generative and Non-linear Phonology,* New York: Routledge.
17. Fischer, W. (1997), Classical Arabic. In: R. Hetzron (Ed.). *The Semitic Languages,* (pp. 187-219). New York: Routledge.
18. Goldsmith, J. (1976), An Overview of Autosegmental Phonology. *Linguistic Analysis,* 2, 23-68.
19. Gussmann, E. (1985), *Phono-Morphology: Studies in the Interaction of Phonology and Morphology,* Lublin: Catholic University of Lublin.
20. Halle, M. (1992), Phonological Features. In: W. Bright (Ed.). *International Encyclopedia of Linguistics,* (pp. 207–212). New York: Oxford University Press.
21. Halle, M. (1995), Feature Geometry and Feature Spreading. *Linguistic Inquiry,* 26,1–46.
22. Halle, M., Vaux, B. and Wolfe, A. (2000), On Feature Spreading and the Representation of Place of Articulation. *Linguistic Inquiry,* 31, 387-444.
23. Hayes, B. (1989), Compensatory Lengthening in Moraic Phonology. *Linguistic Inquiry,* 20, 253-306.
24. Ibin Asfor, A. (1987), *ʔlmumtiᶜ fi: ʔttasri:f [enjoyable morphology]* (Vol. 1), Beirut: da:r ʔlmaᶜrifah.
25. Ibin Jinni, A. (1954), *ʔalmunsif [the equitable]* (2 Vols.), Cairo: da:r ʔihja:ʔ ʔattura:θ ʔalqadi:m.
26. Jensen, J. (1990), *Morphology: Word Structure in Generative Grammar,* Amsterdam: John Benjamins Publishing Company.
27. Jensen, J. (2004), *Principles of Generative Phonology: An Introduction,* Amsterdam: John Benjamins Publishing Company.
28. Kenstowicz, M. (1994), *Phonology in Generative Grammar,* Cambridge: Blackwell.
29. Levin, J. (1985), *A Metrical Theory of Syllabicity.* Unpublished Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, USA.
30. Levy, M. (1971), *The Plural of the Noun in Modern Standard Arabic.* Unpublished Doctoral Dissertation, University of Michigan, Michigan, USA.
31. Liberman, M. (1975), *The Intonational System of English.* Unpublished Doctoral dissertation, Massachusetts Institute of Technology, Cambridge, USA.
32. Mahadin, R. (1982), *The Morphophonemics of the Standard Arabic Triconsonantal Verbs.* Unpublished Doctoral Dissertation, University of Pennsylvania, Philadelphia, USA.
33. Mahadin, R. (1994), An X-Skeleton of Some Phonological Processes in Arabic. *Al-Abhath,* 42, 49-95.
34. Mahadin, R. and El-Yasin, M. (1998), Identity of Vowel Length in Arabic: An Autosegmental Analysis. *Damascus University,* 14, 59-92.
35. McCarthy, J. (1979), *Formal Problems in Semitic Morphology and Phonology.* Unpublished Doctoral dissertation, Massachusetts Institute of Technology, Cambridge, USA.
36. McCarthy, J. (1981), A Prosodic Theory of Nonconcatenative Morphology. *Linguistic Inquiry,* 12, 373-418.
37. McCarthy, J. (1982), Nonlinear Phonology: An Overview. *GLOW Newsletter,* 50. Retrieved August 23, 2019 from https://scholarworks.umass.edu/linguist_faculty_pubs/50
38. McCarthy, J. (1988), Feature Geometry and Dependency: A Review. *Phonetica,* 43, 84–108.
39. McCarthy, J. (1994), The Phonetics and Phonology of Semitic Pharyngeal. In: P. Keating (Ed.), *Phonological Structure and Phonetic Forms,* (pp. 191-233). Cambridge: Cambridge University Press.
40. McCarthy, J. and Smith, N. (2003), Phonological Processes: Assimilation. In: W. Frawley (Ed.). *International Encyclopedia of Linguistics* (Vol. 3), (pp. 320-323). Oxford: Oxford press.

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41. Omar, A. (2008), *muᶜdʒam ʔalluɣah ʔalᶜarabijjah ʔalmuᶜaasirah [the dictionary of Modern Standard Arabic].* Cairo: ᶜaalam alkutub.
42. Oztaner, S. (1996), *A Word Grammar of Turkish with Morphophonemic Rules.* Unpublished Master's Thesis, Cornell University, New York, USA.
43. Ryding, K. (2005), *A Reference Grammar of Modern Standard Arabic.* Cambridge: Cambridge University Press.
44. Sagey, E. (1986), *The Representation of Features and Relations in Nonlinear Phonology.* Unpublished Doctoral dissertation, Massachusetts Institute of Technology, Cambridge, USA.
45. Selkirk, E. (1982), The Syllable. In: V. Hulst and N. Smith (Eds.). *The Structure of Phonological Representations* (Vol. 2), (pp. 337-83). Dordrecht: Foris.
46. Spencer, A. (1996), *Phonology: Theory and Description,* Oxford: Blackwell.
47. Shahin, A. (1980), *ʔalmanhadʒ ʔssawti lilbunjah ʔalᶜarabijjah [a phonological analysis to Arabic structure],* Beirut: ʔarrisa:lah.
48. Vaux, B. (1993), *Is ATR A Laryngeal Feature? ATR-Voice Interactions and the Geometry of the Lower Vocal Tract.* Unpublished manuscript, Harvard University, Cambridge, USA.
49. Vaux, B. (1996), The Status of ATR in Feature Geometry. *Linguistic Inquiry,* 27, 175-182.
50. Watson, J. (2002), *The Phonology and Morphology of Arabic,* Oxford: Oxford University Press.
51. Wright, W. (1896), *A Grammar of the Arabic Language,* Cambridge: Cambridge University Press.

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Appendices

Appendix (A): Initially-weak VNs

Table 5.1: Initially-weak VNs of the pattern $C_1aC_2C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5525	w ʔ d	jaʔid	to bury alive	waʔdan
2	5527	w ʔ m	jawʔam	to agree with	waʔman
3	5539	w b q	jabiq	to perish	wabqan
4	5540	w b l	jabil	to rain heavily	wablan
5	5541	w t d	jatid	to wedge	watdan
6	5542	w t r	jatir	to hold back	watran
7	5545	w θ b	jaθib	to jump	waθban
8	5548	w θ n	jaθin	to settle	waθnan
9	5499	w dʒ b	jadʒib	to fall down to be imperative	wadʒban
10	5550	w dʒ d	jadʒid	to come across	wadʒdan
11	5551	w dʒ z	jadʒiz	to be brief	wadʒzan
12	5552	w dʒ s	jadʒis	to be hidden to fear	wadʒsan
13	5554	w dʒ f	jadʒif	to hurry up	wadʒfan
14	5556	w dʒ m	jadʒim	to be speechless	wadʒman
15	5558	w dʒ h	jadʒih	to hit one's face	wadʒhan
16	5559	w h d	jahid	to be alone	wahdan
17	5565	w x z	jaxiz	to pierce	waxzan
18	5571	w d ˤ	jadaˤ	to leave	wadˤan
19	5578	w r d	jarid	to arrive	wardan
20	5582	w r ˤ	jaraˤ	to be devout	warˤan
21	5583	w r f	jarif	to expand	warfan
22	5584	w r q	jariq	to put forth leaves	warqan
23	5585	w r k	jarik	to have large hips	warkan
24	5592	w z r	jazir	to sin	wazran
25	5594	w z ˤ	jaziˤ	to stop	wazˤan
26	5596	w z n	jazin	to weigh	waznan
27	5600	w s t	jasit	to be centered	wastan
28	5602	w s q	jasiq	to envelop	wasqan
29	5604	w s m	jasim	to mark	wasman
30	5608	w ʃ dʒ	jaʃidʒ	to intertwine	waʃdʒan
31	5611	w ʃ k	jawʃuk	to be about to	waʃkan
32	5613	w ʃ m	jaʃim	to tattoo	waʃman
33	5618	w s f	jasif	to describe	wasfan
34	5619	w s l	jasil	to connect to treat good	waslan
35	5620	w s m	jasim	to disgrace	wasman
36	5625	w d ˤ	jadaˤ	to humiliate to put	wadˤan
37	5626	w d m	jadim	to put on the cutting board	wadman
38	5627	w d n	jading	to weave	wadnan
39	5628	w t ʔ	jataʔ	to be simple to step	watʔan
40	5630	w t d	jatid	to affirm	watdan
41	5632	w t s	jatis	to break	watsan
42	5634	w t n	jatin	to inhabit	watnan
43	5638	w ˤ b	jaˤib	to collect	waˤban
44	5640	w ˤ d	jaˤid	to promise	waˤdan
45	5641	w ˤ r	jaˤir	to be bumpy	waˤran
46	5642	w ˤ z	jaˤiz	to designate	waˤzan
47	5643	w ˤ ð	jaˤið	to preach	waˤðan

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48	5644	w ᶜ k	jaᶜik	to be in pain	waᶜkan
49	5648	w ɣ r	jaɣir	to be filled with hatred	waɣran
50	5649	w ɣ l	jaɣil	to intrude upon	waɣlan
51	5651	w f d	jafid	to arrive at	wafdan
52	5652	w f r	jafir	to increase	wafran
53	5654	w f q	jafiq	to be right	wafqan
54	5656	w q b	jaqib	to darken	waqban
55	5657	w q t	jaqit	to time	waqtan
56	5659	w q d	jaqid	to inflame	waqdan
57	5663	w q ᶜ	jaqaᶜ	to happen to appear to fall	waqᶜan
58	5664	w q f	jaqif	to inform to stop	waqfan
59	5672	w k z	jakiz	to hit	wakzan
60	5673	w k s	jakis	to decrease	waksan
61	5675	w k f	jakif	to flow	wakfan
62	5676	w k l	jakil	to delegate	waklan
63	5682	w l ɣ	jalaɣ	to drink	walɣan
64	5685	w l h	jalih	to grieve	walhan
65	5690	w m d	jamid	to twinkle	wamdan
66	5694	w h b	jahab	to bestow	wahban
67	5695	w h dʒ	jahidʒ	to inflame	wahdʒan
68	5698	w h m	jahim	to imagine	wahman
69	5699	w h n	jahin	to be weak	wahnan
70	5709	j ʔ s	jajʔas jajʔis	to lose hope	jaʔsan
71	5725	j t m	jajtim	to orphan	jatman
72	5739	j s r	jajsar	to become easy	jasran
73	5743	j ᶜ r	jajᶜar jajᶜir	to shout	jaᶜran
74	5749	j f x	jajfax	to hit on the fontanelle	jafxan
75	5754	j q n	jajqan	to believe with certainty	jaqnan
76	5757	j m n	jajmin	to turn right	jamnan

Table 5.2: Initially-weak VNs of the pattern $C_1uC_2u{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5539	w b q	jabiq	to perish	wubu:qan
2	5540	w b l	jabil	to rain heavily	wubu:lan
3	5545	w θ b	jaθib	to jump	wuθu:ban
4	5547	w θ q	jaθiq	to trust	wuθu:qan
5	5499	w dʒ b	jadʒib	to fall down to be imperative	wudʒu:ban
6	5550	w dʒ d	jadʒid	to know	wudʒu:dan
7	5551	w dʒ z	jadʒiz	to be brief	wudʒu:zan
8	5602	w s q	jasiq	to envelop	wusu:qan
9	5554	w dʒ f	jadʒif	to hurry up	wudʒu:fan
10	5556	w dʒ m	jadʒim	to be speechless	wudʒu:man
11	5559	w h d	jahid	to be alone	wuhu:dan
12	5578	w r d	jarid	to arrive	wuru:dan
13	5616	w s b	jasib	to be consistent	wusu:ban
14	5619	w s l	jasil	to arrive	wusu:lan
15	5624	w d h	jadah	to be clear	wudu:han
16	5636	w ð b	jaðib	to be persistent	wuðu:ban
17	5641	w ᶜ r	jaᶜir	to be bumpy	wuᶜu:ran
18	5649	w ɣ l	jaɣil	to intrude upon to delve into	wuɣu:lan

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19	5651	w f d	jafid	to arrive at	wufu:dan
20	5652	w f r	jafir	to increase	wufu:ran
21	5656	w q b	jaqib	to darken	wuqu:ban
22	5659	w q d	jaqid	to inflame	wuqu:dan
23	5663	w q ᶜ	jaqaᶜ	to happen to appear to fall to insult	wuqu:ᶜan
24	5664	w q f	jaqif	to stand up	wuqu:fan
25	5671	w k r	jakir	to nest	wuku:ran
26	5676	w k l	jakil	to delegate	wuku:lan
27	5679	w l dʒ	jalidʒ	to enter	wulu:dʒan
28	5682	w l ɣ	jalaɣ	to drink	wulu:ɣan
29	5724	j b s	jajbas jajbis	to be dry	jubu:san
30	5750	j f ᶜ	jajfaᶜ	to be young	jufu:ᶜan
31	5760	j n ᶜ	jajnaᶜ	to become ripe	junu:ᶜan

Table 5.3: Initially-weak VNs of the pattern $C_1aC_2aC_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5535	w b ʔ	jawbaʔ	to have an epidemic	wabaʔan
2	5537	w b r	jawbar	to have a lot of fur	wabaran
3	5566	w x t	jaxit	to become gray-haired	waxatan
4	5575	w ð r	jaðar	to leave	waðaran
5	5582	w r ᶜ	jaraᶜ	to be devout	waraᶜan
6	5582	w r ᶜ	jawraᶜ jaraᶜ	to be devout	waraᶜan
7	5587	w r m	Jaram jawram	to become swollen	waraman
8	5598	w s x	jawsax	to be dirty	wasaxan
9	5616	w s b	jawsab	to be sick	wasaban
10	5658	w q h	jawqah	to be rude	waqahan
11	5661	w q r	jaqir	to be deaf	waqaran
12	5671	w k r	jakir	to nest	wakaran
13	5678	w l t	jalit	to decrease	walatan
14	5681	w l ᶜ	jawlaᶜ	to love	walaᶜan
15	5685	w l h	jalih	to grieve	walahan
16	5688	w m ʔ	jamaʔ	to indicate	wamaʔan
17	5725	j t m	jajtim	to orphan	jataman
18	5739	j s r	jajsar	to be rich	jasaran
19	5750	j f ᶜ	jajfaᶜ	to be young	jafaᶜan
20	5753	j q ð	jajqað	to wake up	jaqaðan
21	5760	j n ᶜ	jajnaᶜ	to become ripe	janaᶜan

Table 5.4: Initially-weak VNs of the pattern $C_1iC_2C_3at$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5547	w θ q	jaθiq	to trust	θiqatan
2	5550	w dʒ d	jadʒid	to come across to agree with	dʒidatan
3	5559	w h d	jahid	to be alone	hidatan
4	5582	w r ᶜ	jaraᶜ	to be devout	riᶜatan
5	5582	w r ᶜ	jawraᶜ jaraᶜ	to be devout	riᶜatan
6	5596	w z n	jazin	to weigh	zinatan
7	5601	w s ᶜ	jasaᶜ	to encompass	siᶜatan
8	5605	w s n	jawsan	to sleep	sinatan
9	5618	w s f	jasif	to describe	sifatan

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10	5619	w s̲ l	jas̲il	to arrive to connect to treat good	s̲ilatan
11	5620	w s̲ m	jas̲im	to disgrace	s̲imatan
12	5625	w d̲ ᶜ	jada̲ᶜ	to humiliate	di̲ᶜatan
13	5640	w ᶜ d	jaᶜid	to promise	ᶜidatan
14	5643	w ᶜ ð̲	jaᶜið̲	to preach	ᶜið̲atan
15	5541	w t d	jatid	to wedge	tidatan
16	5542	w t r	jatir	to hold back	tiratan
17	5652	w f r	jafir	to increase	wifratan
18	5694	w h b	jahab	to bestow	hibatan

Table 5.5: Initially-weak VNs of the pattern $C_1aC_2a:C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5535	w b ʔ	jawbuʔ	to have an epidemic	waba:ʔatan
2	5540	w b l	jawbul	to have bad consequences	waba:latan
3	5547	w θ q	jaθiq	to trust	waθa:qatan
4	5592	w z r	jazir	to become a minister	waza:ratan
5	5600	w s t̲	jasit̲	to mediate	wasa:t̲atan
6	5611	w ʃ k	jawʃuk	to be about to	waʃa:katan
7	5622	w d̲ ʔ	jawd̲uʔ	to be clean	wad̲a:ʔatan
8	5647	w ɣ d	jawɣid	to be a scamp	waɣa:datan
9	5661	w q r	jawqur	to be calm	waqa:ratan
10	5709	j ʔ s	jajʔas jajʔis	to lose hope	jaʔa:satan
11	5739	j s r	jajsur	to become easy	jasa:ratan
12	5753	j q ð̲	jajqað̲	to wake up	jaqa:ð̲atan

Table 5.6: Initially-weak VNs of the pattern $C_1aC_2i:C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5499	w dʒ b	jadʒib	to beat rapidly	wadʒi:ban
2	5545	w θ b	jaθib	to jump	waθi:ban
3	5554	w dʒ f	jadʒif	to hurry up	wadʒi:fan
4	5583	w r f	jarif	to expand	wari:fan
5	5608	w ʃ dʒ	jaʃidʒ	to intertwine	waʃi:dʒan
6	5690	w m d̲	jamid̲	to twinkle	wami:d̲an
7	5695	w h dʒ	jahidʒ	to inflame	wahi:dʒan
8	5640	w ᶜ d	jaᶜid	to threaten	waᶜi:dan
9	5675	w k f	jakif	to flow	waki:fan
10	5754	j q n	jajqan	to believe with certainty	jaqi:nan

Table 5.7: Initially-weak VNs of the pattern $C_1aC_2aC_3a:n+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5499	w dʒ b	jadʒib	to beat rapidly	wadʒaba:nan
2	5545	w θ b	jaθib	to jump	waθaba:nan
3	5552	w dʒ s	jadʒis	to be hidden to fear	wadʒasa:nan
4	5649	w ɣ l	jaɣil	to intrude upon	waɣala:nan
5	5659	w q d	jaqid	to inflame	waqada:nan
6	5675	w k f	jakif	to flow	wakafa:nan
7	5682	w l ɣ	jalaɣ	to drink	walaɣa:nan
8	5685	w l h	Jalih jawlah	to grieve	walaha:nan
9	5695	w h dʒ	jahidʒ	to inflame	wahadʒa:nan

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Table 5.8: Initially-weak VNs of the pattern $C_1aC_2a:C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5535	w b ʔ	jawbuʔ	to have an epidemic	waba:ʔan
2	5535	w b ʔ	jawbaʔ	to have an epidemic	waba:ʔan
3	5540	w b l	jawbul	to have bad consequences	waba:lan
4	5661	w q r	jaqir	to be calm	waqa:ran
5	5661	w q r	jawqur	to be calm	waqa:ran
6	5739	j s r	jajsar	to dispense with	jasa:ran

Table 5.9: Initially-weak VNs of the pattern $C_1uC_2C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5550	w dʒ d	jadʒid	to have money	wudʒdan
2	5724	j b s	jajbas jajbis	to be dry	jubsan
3	5725	j t m	jajtim	to orphan	jutman
4	5739	j s r	jajsur	to become easy	jusran
5	5739	j s r	jajsar	to dispense with	jusran
6	5757	j m n	jajmun	to make blessed to be blessed	jumnan

Table 5.10: Initially-weak VNs of the pattern $C_1aC_2C_3$at+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5499	w dʒ b	jadʒib	to have a meal	wadʒbatan
2	5559	w h̲ d	jah̲id	to be alone	wah̲datan
3	5644	w ᶜk	jaᶜik	to be in pain	waᶜkatan
4	5753	j q ð̲	jajqað̲	to wake up	jaqað̲atan

Table 5.11: Initially-weak VNs of the pattern $C_1iC_2a:C_3$at+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5577	w r θ	jariθ	to inherit	wira:θatan
2	5592	w z r	jazir	to become a minister	wiza:ratan
3	5651	w f d	jafid	to arrive at	wifa:datan
4	5680	w l d	jalid	to give birth	wila:datan

Table 5.12: Initially-weak VNs of the pattern $C_1iC_2C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5577	w r θ	jariθ	to inherit	wirθan
2	5577	w r θ	jariθ	to inherit	ʔirθan
3	5592	w z r	jazir	to sin	wizran

Table 5.13: Initially-weak VNs of the pattern $C_1aC_2aC_3$at+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5601	w s ᶜ	jasaᶜ	to encompass	saᶜatan
2	5625	w d̲ ᶜ	jad̲aᶜ	to humiliate	d̲aᶜatan

Table 5.14: Initially-weak VNs of the pattern $C_1aC_2i:C_3$at+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5625	w d̲ ᶜ	jad̲aᶜ	to deprive	wad̲i:ᶜatan
2	5663	w q ᶜ	jaqaᶜ	to insult	waqi:ᶜatan

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Table 5.15: Initially-weak VNs of the pattern $C_1iC_2C_3a{:}n+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5550	w dʒ d	jadʒid	to find	widʒda:nan

Table 5.16: Initially-weak VNs of the pattern $C_1uC_2C_3a.n+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5611	w ʃ k	jawʃuk	to be about to	wuʃka:nan

Table 5.17: Initially-weak VNs of the pattern $ma+C_1C_2iC_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5550	w dʒ d	jadʒid	to hate	mawdʒidatan

Appendix (B): Medially-weak VNs

Table 5.18: Medially-weak VNs of the pattern $C_1aC_2C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	335	ʔ w b	jaʔu:b	to come back	ʔawban
2	345	ʔ w d	jaʔu:d	to feel tired	ʔawdan
3	361	ʔ w l	jaʔu:l	to be handed over to	ʔawlan
4	387	ʔ j d	jaʔi:d	to return	ʔajdan
5	392	ʔ j n	jaʔi:n	to draw near	ʔajnan
6	804	b w ʔ	jabu:ʔ	to deserve	bawʔan
7	812	b w h	jabu:h	to reveal	bawhan
8	813	b w x	jabu:x	to become silly	bawxan
9	817	b w r	jabu:r	to leave uncultivated	bawran
10	822	b w s	jabu:s	to kiss	bawsan
11	829	b w ᶜ	jabu:ᶜ	to sell	bawᶜan
12	834	b w l	jabu:l	to urinate	bawlan
13	855	b j d	jabi:d	to diminish	bajdan
14	871	b j d	jabi:d	to lay eggs	bajdan
15	873	b j ᶜ	jabi:ᶜ	to sell	bajᶜan
16	8793	b j n	jabi:n	to leave	bajnan
17	1006	t w b	jatu:b	to repent	tawban
18	1013	t w q	jatu:q	to long	tawqan
19	1018	t w h	jatu:h	to get lost	tawhan
20	1022	t j h	jati:h	to make possible for	tajhan
21	1029	t j m	jati:m	to be in love	tajman
22	1079	θ w b	jaθu:b	to come back to one's senses	θawban
23					
24	1261	dʒ w b	jadʒu:b	to wander	dʒawban
25	1267	dʒ w r	jadʒu:r	to be unjust	dʒawran
26	1269	dʒ w z	jadʒu:z	to be accepted	dʒawzan
27	1264	dʒ w d	jadʒu:d	to exist in large numbers or amounts	dʒawdan
28	1270	dʒ w s	jadʒu:s	to keep coming back	dʒawsan
29	1271	dʒ w c	jadʒu:c	to be hungry	dʒawᶜan
30	1275	dʒ w l	jadʒu:l	to roam	dʒawlan
31	1287	dʒ j ʃ	jadʒi:ʃ	to quake	dʒajʃan
32	1288	dʒ j f	jadʒi:f	to rot	dʒajfan

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33	1497	h w b	jahu:b	to sin	hawban
34	1500	h w ð	jahu:ð	to keep	hawðan
35	1501	h w r	jahu:r	to come back	hawran
36	1502	h w z	jahu:z	to possess	hawzan
37	1503	h w ʃ	jahu:ʃ	to stop	hawʃan
38	1504	h w s	jahu:s	to narrow one's eyes	hawsan
39	1507	h w t	jahu:t	to guard	hawtan
40	1510	h w k	jahu:k	to contrive	hawkan
41	1511	h w l	jahu:l	to elapse to stop	hawlan
42	1513	h̲ w m	jah̲u:m	to move in circles	h̲awman
43	1518	h̲ j d	jah̲i:d	to alter one's course	h̲ajdan
44	1519	h̲ j r	jah̲a:r	to be confused	h̲ajran
45	1520	h̲ j z	jah̲i:z	to possess	h̲ajzan
46	1523	h̲ j s̲	jah̲i:s̲	to try to escape	h̲ajs̲an
47	1524	h̲ j d̲	tah̲i:d̲	to menstruate	h̲ajd̲an
48	1526	h̲ j f	jah̲i:f	to be unfair	h̲ajfan
49	1527	h̲ j q	jah̲i:q	to confine	h̲ajqan
50	1528	h̲ j k	jah̲i:k	to weave	h̲ajkan
51	1530	h̲ j n	jah̲i:n	to approach	h̲ajnan
52	1705	x w d̲	jaxu:d̲	to go through	xawd̲an
53	1706	x w f	jaxa:f	to be scared	xawfan
54	1708	x w n	jaxu:n	to betray	xawnan
55	1711	x j r	jaxi:r	to pick	xajran
56	1882	d w x	jadu:x	to feel dizzy	dawxan
57	1884	d w r	jadu:r	to keep moving in circles	dawran
58	1887	d w s	jadu:s	to step on	dawsan
59	1892	d w l	jadu:l	to be changed	dawlan
60	1896	d w m	jadu:m	to persist	dawman
61	1898	d w n	jadu:n	to be despicable	dawnan
62	1904	d j θ	jadi:θ	to lack jealousy	dajθan
63	1922	d j n	jadi:n	to borrow	dajnan
64	1984	ð w b	jaðu:b	to melt	ðawban
65	1985	ð w d	jaðu:d	to prevent	ðawdan
66	1986	ð w q	jaðu:q	to experience	ðawqan
67	1993	ð j ᶜ	jaði:ᶜ	to be widespread	ðajᶜan
68	1994	ð j l	jaði:l	to have a tail	ðajlan
69	2228	r w d̲	jaru:d̲	to train	rawd̲an
70	2229	r w ᶜ	jaru:ᶜ	to be scared	rawᶜan
71	2230	r w ɣ	jaru:ɣ	to elude	rawɣan
72	2231	r w q	jaru:q	to be pure	rawqan
73	2234	r w m	jaru:m	to aspire to	rawman
74	2243	r j b	jari:b	to make skeptical	rajban
75	2244	r j θ	jari:θ	to slow down	rajθan
76	2246	r j h̲	jari:h̲	to smell	rajh̲an
77	2247	r j ʃ	jari:ʃ	to have feathers	rajʃan
78	2248	r j ᶜ	jari:ᶜ	to increase	rajᶜan
79	2250	r j q	jari:q	to be poured	rajqan
80	2252	r j m	jari:m	to depart	rajman
81	2253	r j n	jari:n	to cover	rajnan
82	2370	z w b	jazu:b	to run	zawban
83	2373	z w h̲	jazu:h̲	to dislocate	zawh̲an
84	2374	z w d	jazu:d	to prepare supplies	zawdan
85	2375	z w r	jazu:r	to visit	zawran
86	2377	z w ᶜ	jazu:ᶜ	to be removed	zawᶜan

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87	2378	z w ɣ	jazu:ɣ	to deviate	zawɣan
88	2382	z w l	jazu:l	to cease to exist	zawlan
89	2383	z w m	jazu:m	to get angry	zawman
90	2386	z j t	jazi:t	to oil	zajtan
91	2390	z j ḥ	jazi:ḥ	to disappear	zajḥan
92	2391	z j d	jazi:d	to increase	zajdan
93	2394	z j ṭ	jazi:ṭ	to become noisy	zajṭan
94	2395	z j ɣ	jazi:ɣ	to swerve	zajɣan
95	2396	z j f	jazi:f	to act in a dishonest way	zajfan
96	2399	z j n	jazi:n	to beautify	zajnan
97	2666	s w x	jasu:x	to sink	sawxan
98	2669	s w r	jasu:r	to get angry	sawran
99	2672	s w ṭ	jasu:ṭ	to lash	sawṭan
100	2673	s w ɣ	jasu:ɣ	to be permitted	sawɣan
101	2677	s w q	jasu:q	to lead	sawqan
102	2678	s w k	jasu:k	to rub	sawkan
103	2682	s w m	jasu:m	to wander	sawman
104	2687	s j b	jasi:b	to flow	sajban
105	2692	s j ḥ	jasi:ḥ	to flow to cruise	sajḥan
106	2693	s j x	jasi:x	to sink	sajxan
107	2695	s j r	jasi:r	to walk	sajran
108	2703	s j ɣ	jasi:ɣ	to taste good	sajɣan
109	2707	s j l	jasi:l	to stream	sajlan
110	2916	ʃ w b	jaʃu:b	to blemish	ʃawban
111	2921	ʃ w ṭ	jaʃu:ṭ	to kick	ʃawṭan
112	2923	ʃ w f	jaʃu:f	to see	ʃawfan
113	2925	ʃ w q	jaʃu:q	to yearn	ʃawqan
114	2926	ʃ w k	jaʃa:k	to become strong	ʃawkan
115	2926	ʃ w k	jaʃu:k	to be pierced with a thorn	ʃawkan
116	2928	ʃ w l	jaʃu:l	to become high	ʃawlan
117	2931	ʃ w h	jaʃu:h	to be ugly	ʃawhan
118	2934	ʃ j b	jaʃi:b	to have grey hair	ʃajban
119	2937	ʃ j x	jaʃi:x	to become old	ʃajxan
120	2938	ʃ j d	jaʃi:d	to build	ʃajdan
121	2941	ʃ j ṭ	jaʃi:ṭ	to burn	ʃajṭan
122	2947	ʃ j l	jaʃi:l	to pick up	ʃajlan
123	2948	ʃ j m	jaʃi:m	to have a mole	ʃajman
124	2949	ʃ j n	jaʃi:n	to disgrace	ʃajnan
125	3073	ṣ w b	jaṣu:b	to be correct	ṣawban
126	3074	ṣ w t	jaṣu:t	to yell	ṣawtan
127	3078	ṣ w r	jaṣu:r	to direct	ṣawran
128	3079	ṣ w ʿ	jaṣu:ʿ	to measure	ṣawʿan
129	3080	ṣ w ɣ	jaṣu:ɣ	to mold	ṣawɣan
130	3082	ṣ w l	jaṣu:l	to assault	ṣawlan
131	3085	ṣ w m	jaṣu:m	to fast	ṣawman
132	3087	ṣ w n	jaṣu:n	to protect	ṣawnan
133	3089	ṣ j ḥ	jaṣi:ḥ	to scream	ṣajḥan
134	3090	ṣ j d	jaṣi:d	to hunt	ṣajdan
135	3092	ṣ j r	jaṣi:r	to become	ṣajran
136	3095	ṣ j f	jaṣi:f	to stay in the summer	ṣajfan
137	3151	ḍ w ʔ	jaḍu:ʔ	to be lightened up	ḍawʔan
138	3152	ḍ w r	jaḍu:r	to be hungry	ḍawran
139	3154	ḍ w ʿ	jaḍu:ʿ	to smell good	ḍawʿan
140	3156	ḍ j r	jaḍi:r	to harm	ḍajran
141	3159	ḍ j f	jaḍi:f	to host	ḍajfan

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142	3160	d j q	jadi:q	to be narrow	dajqan
143	3161	d j m	jadi:m	to be unjust	dajman
144	3252	t w h	jatu:h	to go astray	tawhan
145	3258	t w ᶜ	jatu:ᶜ	to obey	tawᶜan
146	3259	t w f	jatu:f	to go around	tawfan
147	3260	t w q	jatu:q	to bear	tawqan
148	3261	t w l	jatu:l	to reach to grow longer	tawlan
149	3294	t j h	jati:h	to go astray	tajhan
150	3265	t j r	jati:r	to fly	tajran
151	3266	t j ʃ	jati:ʃ	to be headless	tajʃan
152	3267	t j ᶜ	jati:ᶜ	to obey	tajᶜan
153	3268	t j f	jati:f	to go around	tajfan
154	3269	t j q	jati:q	to bear	tajqan
155	3271	t j n	jati:n	to throw mud at	tajnan
156	3489	ᶜ w dʒ	jaᶜu:dʒ	to contort	ᶜawdʒan
157	3490	ᶜ w d	jaᶜu:d	to return	ᶜawdan
158	3491	ᶜ w ð	jaᶜu:ð	to seek protection	ᶜawðan
159	3493	ᶜ w z	jaᶜu:z	to miss	ᶜawzan
160	3495	ᶜ w s	jaᶜa:s	to be difficult	ᶜawsan
161	3496	ᶜ w d	jaᶜu:d	to compensate	ᶜawdan
162	3497	ᶜ w q	jaᶜu:q	to be stopped	ᶜawqan
163	3500	ᶜ w m	jaᶜu:m	to float	ᶜawman
164	3504	ᶜ j b	jaᶜi:b	to disfigure	ᶜajban
165	3505	ᶜ j θ	jaᶜi:θ	to ravage	ᶜajθan
166	3506	ᶜ j r	jaᶜi:r	to disgrace	ᶜajran
167	3508	ᶜ j ʃ	jaᶜi:ʃ	to live	ᶜajʃan
168	3510	ᶜ j f	jaᶜa:f jaᶜi:f	to hate	ᶜajfan
169	3511	ᶜ j q	jaᶜi:q	to stop	ᶜajqan
170	3512	ᶜ j l	jaᶜi:l	to become poor	ᶜajlan
171	3625	ɣ w r	jaɣu:r	to fall in	ɣawran
172	3628	ɣ w s	jaɣu:s	to dive	ɣawsan
173	3629	ɣ w t	jaɣu:t	to sink	ɣawtan
174	3631	ɣ w l	jaɣu:l	to destroy	ɣawlan
175	3633	ɣ j b	jaɣi:b	to absent oneself from	ɣajban
176	3634	ɣ j θ	jaɣi:θ	to help	ɣajθan
177	3633	ɣ j b	jaɣi:b	to absent oneself from	ɣajban
178	3634	ɣ j θ	jaɣi:θ	to help	ɣajθan
179	3637	ɣ j d	jaɣi:d	to disappear	ɣajdan
180	3638	ɣ j t	jaɣi:t	to sink	ɣajtan
181	3639	ɣ j ð	jaɣi:ð	to enrage	ɣajðan
182	3642	ɣ j l	jaɣi:l	to harm	ɣajlan
183	3643	ɣ j m	jaɣi:m	to be cloudy	ɣajman
184	3872	f w t	jafu:t	to pass	fawtan
185	3879	f w h	jafu:h	to spread a strong odor	fawhan
186	3880	f w r	jafu:r	to boil over	fawran
187	3882	f w z	jafu:z	to win	fawzan
188	3900	f w h	jafu:h	to utter	fawhan
189	3902	f j ʔ	jafi:ʔ	to return	fajʔan
190	3905	f j h	jafi:h	to spread a strong odor	fajhan
191	3916	f j d	jafi:d	to be filled with	fajdan

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192	4129	q w t	jaqu:t	to feed	qawtan
193	4131	q w d	jaqu:d	to lead	qawdan
194	4132	q w r	jaqu:r	to expand	qawran
195	4133	q w s	jaqu:s	to measure to bend	qawsan
196	4134	q w d̲	jaqu:d̲	to demolish	qawd̲an
197	4137	q w f	jaqu:f	to follow	qawfan
198	4138	q w q	jaqu:q	to cackle	qawqan
199	4141	q w l	jaqu:l	to speak	qawlan
200	4145	q w m	jaqu:m	to stand up	qawman
201	4148	q j ʔ	jaqi:ʔ	to vomit	qajʔan
202	4151	q j d	jaqi:d	to tie	qajdan
203	4154	q j s	jaqi:s	to measure	qajsan
204	4158	q j d̲	jaqi:d̲	to crack	qajd̲an
205	4159	q j ð̲	jaqi:ð̲	to become hot	qajð̲an
206	4160	q j q	jaqi:q	to crackle	qajqan
207	4161	q j l	jaqi:l	to nap	qajlan
208	4447	k w d	jaka:d	to be about to	kawdan
209	4451	k w z	jaku:z	to drink from a jug	kawzan
210	4473	k w n	jaku:n	to exist	kawnan
211	4480	k j d	jaki:d	to deceive	kajdan
212	4483	k j s	jaki:s	to be wise	kajsan
213	4487	k j l	jaki:l	to weigh	kajlan
214	4494	k j n	jaki:n	to be weak	kajnan
215	4641	l w θ	jalu:θ	to dirty	lawθan
216	4644	l w h̲	jalu:h̲	to appear	lawh̲an
217	4645	l w ð	jalu:ð	to escape	lawðan
218	4649	l w z	jalu:z	to ask for protection	lawzan
219	4651	l w t̲	jalu:t̲	to cling to	lawt̲an
220	4653	l w ᶜ	jalu:ᶜ	to be impatient	lawᶜan
221	4655	l w f	jalu:f	to chew	lawfan
222	4656	l w k	jalu:k	to chew	lawkan
223	4660	l w m	jalu:m	to blame	lawman
224	4666	l j t	jali:t	to deprive from	lajtan
225	4675	l j q	jali:q	to be fit for	lajqan
226	4945	m w t	jamu:t	to die	mawtan
227	4947	m w dʒ	jamu:dʒ	to surge	mawdʒan
228	4949	m w r	jamu:r	to surge	mawran
229	4968	m w h	jamu:h	to be rich in water	mawhan
230	4974	m j d	jami:d	to sway	majdan
231	4976	m j r	jami:r	to provide	majran
232	4977	m j z	jami:z	to distinguish	majzan
233	4978	m j s	jami:s	to strut	majsan
234	4979	m j t̲	jami:t̲	to move away from	majt̲an
235	4980	m j ᶜ	jami:ᶜ	to become fluid	majᶜan
236	4990	m j l	jami:l	to deviate from	majlan
237	4996	m j h	jami:h	to be rich in water	majhan
238	5265	n w ʔ	janu:ʔ	to burden	nawʔan
239	5266	n w b	janu:b	to return	nawban
240	5269	n w h̲	janu:h̲	to moan	nawh̲an
241	5271	n w r	janu:r	to illuminate	nawran
242	5275	n w s	janu:s	to vacillate	nawsan
243	5276	n w ʃ	janu:ʃ	to take	nawʃan
244	5278	n w s̲	janu:s̲	to resort to	nawsan
245	5279	n w t̲	janu:t̲	to be dependent on	nawt̲an
246	5281	n w f	janu:f	to rise	nawfan
247	5284	n w l	janu:l	to get	nawlan
248	5285	n w m	jana:m	to sleep	nawman
249	5290	n j ʔ	jani:ʔ	to be raw	najʔan

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250	5291	n j b	jani:b	to be unfortunate	najban
251	5296	n j r	jani:r	to line up	najran
252	5303	n j l	jana:l	to achieve	najlan
253	5480	h w d	jahu:d	to repent	hawdan
254	5482	h w r	jahu:r	to collapse	hawran
255	5484	h w ʃ	jahu:ʃ	to tremble	hawʃan
256	5486	h w l	jahu:l	to fear	hawlan
257	5488	h w n	jahu:n	to be weak	hawnan
258	5488	h w n	jahu:n	to be easy	hawnan
259	5494	h j b	jaha:b jahi:b	to fear	hajban
260	5496	h j dʒ	jahi:dʒ	to be agitated	hajdʒan
261	5510	h j d̲	jahi:d̲	to break	hajd̲an
262	5511	h j ᶜ	jahi:ᶜ	to be wide	hajᶜan
263	5512	h j f	jahi:f	to be slim	hajfan
264	5514	h j l	jahi:l	to disseminate	hajlan
265	5517	h j m	jahi:m	to wander	hajman

Table 5.19: Medially-weak VNs of the pattern $C_1aC_2aC_3a{:}n{+}an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	813	b w x	jabu:x	to become silly	bawaxa:nan
2	1013	t w q	jatu:q	to long	tawaqa:nan
3	1018	t w h	jatu:h	to get lost	tawaha:nan
4	1031	t j h	jati:h	to get lost	tajaha:nan
5	1079	θ w b	jaθu:b	to come back to one's senses	θawaba:nan
6	1080	θ w r	jaθu:r	to rebel	θawara:nan
7	1270	dʒ w s	jadʒu:s	to keep coming back	dʒawasa:nan
8	1275	dʒ w l	jadʒu:l	to roam	dʒawala:nan
9	1287	dʒ j ʃ	jadʒi:ʃ	to quake	dʒajaʃa:nan
10	1513	h̲ w m	jah̲u:m	to move in circles	h̲awama:nan
11	1518	h̲ j d	jah̲i:d	to alter one's course	h̲ajada:nan
12	1519	h̲ j r	jah̲a:r	to be confused	h̲ajara:nan
13	1716	x j l	jaxa:l	to assume	xajala:nan
14	1884	d w r	jadu:r	to keep moving in circles	dawara:nan
15	1984	ð w b	jaðu:b	to melt	ðawaba:nan
16	1986	ð w q	jaðu:q	to experience	ðawaqa:nan
17	1993	ð j ᶜ	jaði:ᶜ	to be widespread	ðajaᶜa:nan
18	2221	r w d	jaru:d	to lead	rawada:nan
19	2230	r w ɣ	jaru:ɣ	to elude	rawaɣa:nan
20	2231	r w q	jaru:q	to be pure	rawaqa:nan
21	2248	r j ᶜ	jari:ᶜ	to increase	rajaᶜa:nan
22	2370	z w b	jazu:b	to run	zawaba:nan
23	2373	z w h̲	jazu:h̲	to dislocate	zawah̲a:nan
24	2378	z w ɣ	jazu:ɣ	to deviate	zawaɣa:nan
25	2382	z w l	jazu:l	to cease to exist	zawala:nan
26	2390	z j h̲	jazi:h̲	to disappear	zajah̲a:nan
27	2395	z j ɣ	jazi:ɣ	to swerve	zajaɣa:nan
28	2666	s w x	jasu:x	to sink	sawaxa:nan
29	2687	s j b	jasi:b	to flow	sajaba:nan
30	2692	s j h̲	jasi:h̲	to flow	sajah̲a:nan
31	2693	s j x	jasi:x	to sink	sajaxa:nan
32	2707	s j l	jasi:l	to stream	sajala:nan
33	2928	ʃ w l	jaʃu:l	to become high	ʃawala:nan
34	2943	ʃ j ᶜ	jaʃi:ᶜ	to spread	ʃajaᶜa:nan
35	3082	s̲ w l	jas̲u:l	to assault	s̲awala:nan
36	3089	s̲ j h̲	jas̲i:h̲	to scream	s̲ajah̲a:nan

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37	3259	t̲ w f	jat̲u:f	to go around	t̲awafa:nan
38	3265	t̲ j r	jat̲i:r	to fly	t̲ajara:nan
39	3266	t̲ j ʃ	jat̲i:ʃ	to be headless	t̲jaʃa:nan
40	3505	ᶜ j θ	jaᶜi:θ	to ravage	ᶜajaθa:nan
41	3506	ᶜ j r	jaᶜi:r	to disgrace	ᶜajara:nan
42	3510	ᶜ j f	jaᶜa:f jaᶜi:f	to hate	ᶜajafa:nan
43	3879	f w h̲	jafu:h̲	to spread a strong odor	fawah̲a:nan
44	3880	f w r	jafu:r	to boil over	fawara:nan
45	3905	f j h̲	jafi:h̲	to spread a strong odor	fajah̲a:nan
46	3916	f j d̲	jafi:d̲	to be filled with	fajad̲a:nan
47	4675	l j q	jali:q	to be fit for	lajaqa:nan
48	4974	m j d	jami:d	to sway	majada:nan
49	4978	m j s	jami:s	to strut	majasa:nan
50	4990	m j l	jami:l	to deviate from	majala:nan
51	4947	m w dʒ	jamu:dʒ	to surge	mawadʒa:nan
52	5275	n w s	janu:s	to vacillate	nawasa:nan
53	5278	n w s̲	janu:s̲	to resort to	nawas̲a:nan
54	5496	h j dʒ	jahi:dʒ	to be agitated	hajadʒa:nan
55	5511	h j ᶜ	jahi:ᶜ	to be wide	hajaᶜa:nan
56	5517	h j m	jahi:m	to wander	hajama:nan

Table 5.20: Medially-weak VNs of the pattern $C_1iC_2a{:}C_3{+}an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	335	ʔ w b	jaʔu:b	to come back	ʔija:ban
2	345	ʔ w d	jaʔu:d	to feel tired	ʔija:dan
3	361	ʔ w l	jaʔu:l	to be handed over to	ʔija:lan
4	385	ʔ j s	jajaʔas	to give up	ʔija:san
5	1985	ð w d	jaðu:d	to prevent	ðija:dan
6	2221	r w d	jaru:d	to lead	rija:dan
7	2228	r w d̲	jaru:d̲	to train	rija:d̲an
8	2394	z j t̲	jazi:t̲	to become noisy	zija:t̲an
9	2677	s w q	jasu:q	to lead	sija:qan
10	2678	s w k	jasu:k	to brush teeth with the Siwak	siwa:kan
11	3085	s̲ w m	jas̲u:m	to fast	s̲ija:man
12	3087	s̲ w n	jas̲u:n	to protect	s̲ija:nan
13	3089	s̲ j h̲	jas̲i:h̲	to scream	s̲ija:h̲an
14	3151	d̲ w ʔ	jad̲u:ʔ	to be lightened up	d̲ija:ʔan
15	3491	ᶜ w ð	jaᶜu:ð	to seek protection	ᶜija:ðan
16	3496	ᶜ w d̲	jaᶜu:d̲	to compensate	ᶜija:d̲an
17	3510	ᶜ j f	jaᶜi:f	to hate	ᶜija:fan
18	4131	q w d	jaqu:d	to lead	qija:dan
19	4133	q w s	jaqu:s	to measure	qija:san
20	4145	q w m	jaqu:m	to stand up	qija:man
21	4154	q j s	jaqi:s	to measure	qija:san
22	4473	k w n	jaku:n	to exist	kija:nan
23	4645	l w ð	jalu:ð	to escape	liwa:ðan
24	4645	l w ð	jalu:ð	to escape	lija:ðan
25	4651	l w t̲	jalu:t̲	to be gay	liwa:t̲an
26	5496	h j dʒ	jahi:dʒ	to be agitated	hija:dʒan
27	5512	h j f	jaha:f	to be slim	hija:fan
28	5517	h j m	jahi:m	to be thirsty	hija:man

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Table 5.21: Medially-weak VNs of the pattern $C_1iC_2a{:}C_3at{+}an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1502	h̲ w z	jah̲u:z	to possess	h̲ija:zatan
2	1507	h̲ w t̲	jah̲u:t̲	to guard	h̲ija:t̲atan
3	1510	h̲ w k	jah̲u:k	to contrive	h̲ija:katan
4	1520	h̲ j z	jah̲i:z	to possess	h̲ija:zatan
5	1528	h̲ j k	jah̲i:k	to weave	h̲ija:katan
6	1708	x w n	jaxu:n	to betray	xija:natan
7	1715	x j t̲	jaxi:t̲	to sew	xija:t̲atan
8	1904	d j θ	jadi:θ	to lack jealousy	dija:θatan
9	1922	d j n	jadi:n	to believe in	dija:natan
10	2228	r w d̲	jaru:d̲	to train	rija:d̲atan
11	2391	z j d	jazi:d	to increase	zija:datan
12	2667	s w d	jasu:d	to prevail	sija:datan
13	2670	s w s	jasu:s	to rule	sija:satan
14	2677	s w q	jasu:q	to lead	sija:qatan
15	2692	s j h̲	jasi:h̲	to cruise	sija:h̲atan
16	2941	ʃ j t̲	jaʃi:t̲	to burn	ʃija:t̲atan
17	3087	s̲ w n	jas̲u:n	to protect	s̲ija:natan
18	3159	d̲ j f	jad̲i:f	to host	d̲ija:fatan
19	3080	s̲ w ɣ	jas̲u:ɣ	to mold	s̲ija:ɣatan
20	3498	ᶜ w l	jaᶜu:l	to be unjust	ᶜija:latan
21	4131	q w d	jaqu:d	to lead	qija:datan
22	4137	q w f	jaqu:f	to follow	qija:fatan
23	4483	k j s	jaki:s	to be wise	kija:satan
24	4675	l j q	jali:q	to be fit for	lija:qatan
25	5266	n w b	janu:b	to take place of	nija:batan

Table 5.22: Medially-weak VNs of the pattern $C_1aC_2a{:}C_3{+}an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	804	b w ʔ	jabu:ʔ	to deserve	bawa:ʔan
2	817	b w r	jabu:r	to leave uncultivated	bawa:ran
3	850	b j t	jabi:t	to become	baja:tan
4	879	b j n	jabi:n	to appear	baja:nan
5	1079	θ w b	jaθu:b	to come back to one's senses	θawa:ban
6	1269	dʒ w z	jadʒu:z	to be accepted	dʒawa:zan
7	1534	h̲ j j	jah̲ja:	to be alive	h̲aja:tan
8	1896	d w m	jadu:m	to persist	dawa:man
9	1986	ð w q	jaðu:q	to experience	ðawa:qan
10	2219	r w dʒ	jaru:dʒ	to be current	rawa:dʒan
11	2220	r w h̲	jaru:h̲	to leave to feel comfortable	rawa:h̲an
12	2230	r w ɣ	jaru:ɣ	to elude	rawa:ɣan
13	2673	s w ɣ	jasu:ɣ	to be permitted	sawa:ɣan
14	2682	s w m	jasu:m	to wander	sawa:man
15	3259	t̲ w f	jat̲u:f	to go around	t̲awa:fan
16	3872	f w t	jafu:t	to pass	fawa:tan
17	3890	f w q	jafu:q	to surpass	fawa:qan
18	4645	l w ð	jalu:ð	to escape	lawa:ðan
19	4675	l j q	jali:q	to be fit for	laja:qan
20	4683	l j n	jail:n	to be flexible	laja:nan
21	5284	n w l	janu:l	to get	nawa:lan
22	5488	h w n	jahu:n	to be weak	hawa:nan

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Table 5.23: Medially-weak VNs of the pattern $C_1aC_2C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	335	ʔ w b	jaʔu:b	to come back	ʔawbatan
2	1006	t w b	jatu:b	to repent	tawbatan
3	1080	θ w r	jaθu:r	to rebel	θawratan
4	1264	dʒ w d	jadʒu:d	to perfect	dʒawdatan
5	1275	dʒ w l	jadʒu:l	to roam	dʒawlatan
6	1282	dʒ j ʔ	jadʒi:ʔ	to occur	dʒajʔatan
7	1507	h̲ w t̲	jah̲u:t̲	to guard	h̲ajt̲atan
8	1519	h̲ j r	jah̲a:r	to be confused	h̲ajratan
9	1710	x j b	jaxi:b	to fail	xajbatan
10	1711	x j r	jaxi:r	to pick	xajratan
11	1892	d w l	jadu:l	to be changed	dawlatan
12	2669	s w r	jasu:r	to get angry	sawratan
13	2934	ʃ j b	jaʃi:b	to have grey hair	ʃajbatan
14	3490	ᶜ w d	jaᶜu:d	to return	ᶜawdatan
15	3512	ᶜ j l	jaᶜi:l	to become poor	ᶜajlatan
16	3636	ɣ j r	jaɣa:r	to be jealous	ɣajratan
17	4977	m j z	jami:z	to distinguish	majzatan
18	5266	n w b	janu:b	to be affected by	nawbatan
19	5492	h j ʔ	jaha:ʔ	to look good	hajʔatan
20	5494	h j b	jaha:b jahi:b	to fear	hajbatan

Table 5.24: Medially-weak VNs of the pattern $C_1aC_2aC_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1031	t j h	jati:h	to get lost	tajahan
2	1519	h̲ j r	jah̲a:r	to be confused	h̲ajaran
3	1703	x w r	jaxu:r	to become weaker	xawaran
4	1704	x w s̲	jaxu:s̲	to have sunken eye(s)	xawas̲an
5	2225	r w ʃ	jaru:ʃ	to become insane	rawaʃan
6	3158	d̲ j ᶜ	jad̲i:ᶜ	to be lost	d̲ajaᶜan
7	3489	ᶜ w dʒ	jaᶜwadʒ	to contort	ᶜawadʒan
8	3492	ᶜ w r	jaᶜwar	to become one-eyed	ᶜawaran
9	3496	ᶜ w d̲	jaᶜu:d̲	to compensate	ᶜawadan
10	3498	ᶜ w l	jaᶜu:l	to be unjust	ᶜawalan
11	3900	f w h	jafu:h	to have a wide mouth	fawahan
12	3493	ᶜ w z	jaᶜu:z	to become poor	ᶜawazan
13	3495	ᶜ w s̲	jaᶜu:s̲	to be difficult	ᶜawas̲an
14	4454	k w ᶜ	jaku:ᶜ	to roll	kawaᶜan
15	4641	l w θ	jalu:θ	to be stupid	lawaθan
16	5479	h w dʒ	jahwadʒ	to be flighty	hawadʒan
17	5483	h w s	jahwas	to be obsessed with	hawasan
18	5492	h j ʔ	jahu:ʔ	to look good	hajaʔan
19	5512	h j f	jahi:f	to be slim	hajafan

Table 5.25: Medially-weak VNs of the pattern $C_1uC_2u:C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	855	b j d	jabi:d	to diminish	buju:dan
2	1529	h̲ j l	jah̲i:l	to change	h̲uju:lan
3	1993	ð j ᶜ	jaði:ᶜ	to be widespread	ðuju:ᶜan
4	2390	z j h̲	jazi:h̲	to disappear	zuju:h̲an
5	2692	s j h̲	jasi:h̲	to cruise	suju:h̲an

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6	2943	ʃ j ᶜ	jaʃi:ᶜ	to spread	ʃuju:ᶜan
7	3505	ᶜ j θ	jaᶜi:θ	to ravage	ᶜuju:θan
8	3916	f j d	jafi:d	to be filled with	fuju:dan
9	5290	n j ʔ	jani:ʔ	to be raw	nuju:ʔan
10	1079	θ w b	jaθu:b	to come back to one's senses	θuʔu:ban
11	2216	r w b	jaru:b	to be uncertain	ruʔu:ban
12	2666	s w x	jasu:x	to sink	suʔu:xan
13	3625	ɣ w r	jaɣu:r	to fall in	ɣuʔu:ran
14	4968	m w h	jamu:h	to be rich in water	muʔu:han

Table 5.26: Medially-weak VNs of the pattern $C_1iC_2C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1282	dʒ j ʔ	jadʒi:ʔ	to come	dʒi:ʔatan
2	1507	ḥ w ṭ	jaḥu:ṭ	to guard	ḥi:ṭatan
3	1706	x w f	jaxa:f	to fear	xi:fatan
4	1711	x j r	jaxi:r	to pick	xi:ratan
5	2243	r j b	jari:b	to make skeptical	ri:batan
6	2695	s j r	jasi:r	to walk	si:ratan
7	3263	ṭ j b	jaṭi:b	to be good	ṭi:batan
8	3508	ᶜ j ʃ	jaᶜi:ʃ	to live	ᶜi:ʃatan
9	3633	ɣ j b	jaɣi:b	to speak ill of somebody	ɣi:batan
10	4977	m j z	jami:z	to distinguish	mi:zatan

Table 5.27: Medially-weak VNs of the pattern $C_1ajC_2C_3u:C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	361	ʔ w l	jaʔu:l	to be handed over to	ʔajlu:latan
2	855	b j d	jabi:d	to diminish	bajdu:datan
3	879	b j n	jabi:n	to leave	bajnu:natan
4	1511	ḥ w l	jaḥu:l	to stop	ḥajlu:latan
5	1530	ḥ j n	jaḥi:n	to approach	ḥajnu:natan
6	1896	d w m	jadu:m	to persist	dajmu:matan
7	2937	ʃ j x	jaʃi:x	to become old	ʃajxu:xatan
8	3092	ṣ j r	jaṣi:r	to become	ṣajru:ratan
9	3633	ɣ j b	jaɣi:b	to fall into a coma	ɣajbu:batan
10	4473	k w n	jaku:n	to exist	kajnu:natan

Table 5.28: Medially-weak VNs of the pattern $C_1iC_2C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1031	t j h	jati:h	to get lost	ti:han
2	1922	d j n	jadi:n	to believe in	di:nan
3	3160	ḍ j q	jaḍi:q	to be narrow	ḍi:qan
4	3263	ṭ j b	jaṭi:b	to be good	ṭi:ban
5	4141	q w l	jaqu:l	to speak	qi:lan
6	4683	l j n	jail:n	to be flexible	li:nan

Table 5.29: Medially-weak VNs of the pattern $C_1uC_2u:C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2707	s j l	jasi:l	to stream	suju:latan
2	3916	f j d	jafi:d	to be filled with	fuju:datan
3	4980	m j ᶜ	jami:ᶜ	to become fluid	muju:ᶜatan
4	5290	n j ʔ	jani:ʔ	to be raw	nuju:ʔatan
5	4683	l j n	jali:n	to be flexible	luju:natan

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Table 5.30 : Medially-weak VNs of the pattern $C_1aC_2iC_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2220	r w ḥ	jara:ḥ	to feel comfortable	ra:ḥatan
2	3258	ṯ w ˁ	jaṯu:ˁ	to obey	ṯa:ˁatan
3	3260	ṯ w q	jaṯu:q	to bear	ṯa:qatan
4	4141	q w l	jaqu:l	to speak	qa:latan
5	4145	q w m	jaqu:m	to stand up	qa:matan

Table 5.31: Medially-weak VNs of the pattern $C_1uC_2a:C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	3074	s̱ w t	jas̱u:t	to yell	s̱uwa:tan
2	3890	f w q	jafu:q	to hiccup	fuwa:qan
3	5269	n w ḥ	janu:ḥ	to moan	nuwa:ḥan
4	4645	l w ð	jalu:ð	to escape	luwa:ðan
5	5517	h j m	jahi:m	to be thirsty	huja:man

Table 5.32: Medially-weak VNs of the pattern $ma+C_1C_2aC_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2943	ʃ j ˁ	jaʃi:ˁ	to spread	maʃa:ˁan
2	2947	ʃ j l	jaʃi:l	to pick up	maʃa:lan
3	5285	n w m	jana:m	to sleep	mana:man

Table 5.33: Medially-weak VNs of the pattern CuC_2C_3+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1264	dʒ w d	jadʒu:d	to lavish to exist in large numbers or amounts	dʒu:dan
2	1703	x w r	jaxu:r	to bellow	xu:ran
3	1898	d w n	jadu:n	to be despicable	du:nan

Table 5.34: Medially-weak VNs of the pattern $ma+C_1C_2aC_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5488	h w n	jahu:n	to be weak	maha:natan
2	5494	h j b	jaha:b jahi:b	to fear	maha:batan

Table 5.35: Medially-weak VNs of the pattern $ti+C_1C_2a:C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	879	b j n	jabi:n	to appear	tibja:nan
2	3259	ṯ w f	jaṯu:f	to go around	tiṯwa:fan

Table 5.36: Medially-weak VNs of the pattern $ta+C_1C_2a:C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2695	s j r	jasi:r	to walk	tasja:ran
2	5517	h j m	jahi:m	to be thirsty	tahja:man

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Table 5.37: Medially-weak VNs of the pattern $C_1iC_2aC_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	3489	ᶜ w dʒ	jaᶜwadʒ	to contort	ᶜiwadʒan

Table 5.38: Medially-weak VNs of the pattern $C_1uC_2C_3at$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1264	dʒ w d	jadʒu:d	to perfect	dʒu:datan

Table 5.39: Medially-weak VNs of the pattern $C_1iC_2u{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2390	z j h̲	jazi:h̲	to displace	ziju:h̲an

Table 5.40: Medially-weak VNs of the pattern $C_1uC_2C_3a{:}$ʔ+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1716	x j l	jaxa:l	to be arrogant	xujla:ʔan

Table 5.41: Medially-weak VNs of the pattern $C_1aC_2a{:}C_3$ijat+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	3258	t̲ w ᶜ	jat̲u:ᶜ	to comply with	t̲awa:ᶜijatan

Table 5.42: Medially-weak VNs of the pattern ma+$C_1C_2iC_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	3092	s̲ j r	jas̲i:r	to become	mas̲i:ran

Appendix (C): Finally-weak VNs

Table 5.43: Finally-weak VNs of the pattern $C_1aC_2C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	56	ʔ t j	jaʔti:	to come	ʔatjan
2	178	ʔ s w	jaʔsu:	to comfort	ʔaswan
3	179	ʔ s j	jaʔsi:	to heal	ʔasjan
4	253	ʔ l w	jaʔlu:	to weaken	ʔalwan
5	324	ʔ n j	jaʔni:	to slow down	ʔanjan
6	605	b r j	jabri:	to sharpen	barjan
7	689	b ɣ j	jabɣi:	to be unjust	baɣjan
8	751	b l w	jablu:	to test	balwan
9	1078	θ n j	jaθni:	to bend	θanjan
10	1110	dʒ b w	jadʒbu:	to collect	dʒabwan
11	1111	dʒ b j	jadʒbi:	to collect	dʒabjan
12	1114	dʒ θ w	jadʒθu:	to bow	dʒaθwan
13	1164	dʒ r j	jadʒri:	to run	dʒarjan
14	1214	dʒ l w	jadʒlu:	to rinse	dʒalwan
15	1245	dʒ n j	jadʒni:	to gather	dʒanjan
16	1328	h̲ θ w	jah̲θu:	to throw	h̲aθwan
17	1329	h̲ θ j	jah̲θi:	to throw	h̲aθjan
18	1337	h̲ dʒ w	jah̲dʒu:	to be wise	h̲adʒwan

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19	1347	h d w	jahdu:	to sing for camels to follow	hadwan
20	1355	h ð w	jahðu:	to imitate	haðwan
21	1397	h s w	jahsu:	to sip	haswan
22	1404	h ʃ w	jahʃu:	to stuff	haʃwan
23	1434	h f w	jahfu:	to give generously	hafwan
24	1460	h l j	jahli:	to be sweet	haljan
25	1477	h m j	jahmi:	to protect	hamjan
26	1494	h n j	jahni:	to bend	hanjan
27	1553	x b w	jaxbu:	to be extinguished	xabwan
28	1610	x z j	jaxza:	to be humiliated	xizjan
29	1624	x ʃ j	jaxʃa:	to fear	xaʃjan
30	1632	x s j	jaxsa:	to be castrated	xasjan
31	1650	x t w	jaxtu:	to walk	xatwan
32	1658	x f j	jaxfi:	to hide	xafjan
33	1696	x n w	jaxnu:	to use impolite language	xanwan
34	1747	d dʒ w	jaddʒu:	to become dark	dadʒwan
35	1753	d h w	jadhu:	to flatten	dahwan
36	1754	d h j	jadhi:	to flatten	dahjan
37	1840	d l w	jadlu:	to express one's opinions	dalwan
38	1856	d m j	jadmi:	to bleed	damjan
39	1876	d h w	jadhu:	to be experienced by	dahwan
40	1878	d h j	jadha:	to be experienced by	dahjan
41	1958	ð r w	jaðru:	to disperse	ðarwan
42	1959	ð r j	jaðri:	to disperse	ðarjan
43	2032	r b w	jarbu:	to increase	rabwan
44	2045	r θ w	jarθu:	to commemorate	raθwan
45	2046	r θ j	jarθi:	to commemorate	raθjan
46	2066	r h w	jarhu:	to cause to revolve	rahwan
47	2067	r h j	jarhi:	to grind	rahjan
48	2104	r s w	jarsu:	to moor	raswan
49	2112	r ʃ w	jarʃu:	to bribe	raʃwan
50	2140	r ˤ j	jarˤa:	to herd sheep	raˤjan
51	2146	r ɣ w	jarɣu:	to froth to grunt	raɣwan
52	2160	r f w	jarfu:	to get married	rafwan
53	2171	r q j	jarqi:	to recite Quran over someone for healing and protection	raqjan
54	2171	r q j	jarqa:	to advance	raqjan
55	2196	r m j	jarmi:	to throw	ramjan
56	2206	r n w	jarnu:	to look forward to	ranwan
57	2274	z dʒ w	jazdʒu:	to push gently	zadʒwan
58	2297	z r j	jazri:	to mock	zarjan
59	2369	z h w	jazhu:	to be arrogant	zahwan
60	2434	s b j	jasbi:	to imprison	sabjan
61	2454	s dʒ w	jasdʒu:	to be calm to cover	sadʒwan
62	2466	s h w	jashu:	to dredge	sahwan
63	2466	s h j	jasha:	to dredge	sahjan
64	2509	s r w	jasru:	to remove	sarwan
65	2511	s r j	jasri:	to walk	sarjan
66	2520	s t w	jastu:	to assail	satwan
67	2527	s ˤ j	jasˤa:	to strive	saˤjan
68	2527	s ˤ j	jasˤa:	to betray	saˤjan
69	2545	s f j	jasfa:	to disperse	safjan
70	2554	s q j	jasqi:	to give someone a drink	saqjan
71	2590	s l w	jaslu:	to forget	salwan

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72	2658	s h w	jashu:	to forget	sahwan
73	2760	ʃ t w	jaʃtu:	to rain	ʃatwan
74	2766	ʃ dʒ w	jaʃdʒu:	to become sad	ʃadʒwan
75	2788	ʃ d w	jaʃdu:	to sing	ʃadwan
76	2792	ʃ ð w	jaʃðu:	to smell good	ʃaðwan
77	2866	ʃ q w	jaʃqu:	to be distressed	ʃaqwan
78	2873	ʃ k w	jaʃku:	to complain	ʃakwan
79	2875	ʃ k j	jaʃki:	to complain	ʃakjan
80	2969	s̲ b w	jas̲bu:	to long for	s̲abwan
81	2977	s̲ h w	jas̲hu:	to wake up	s̲ahwan
82	3039	s̲ l j	jas̲li:	to be tortured	s̲aljan
83	3113	d̲ h̲ w	jad̲h̲a:	to be in the forenoon	d̲ah̲wan
84	3136	d̲ f w	jad̲fu:	to increase	d̲afwan
85	3184	t̲ h̲ w	jat̲hu:	to flatten	t̲ah̲wan
86	3208	t̲ ɣ j	jat̲ɣa:	to be despotic	t̲aɣjan
87	3217	t̲ f w	jat̲fu:	to float	t̲afwan
88	3030	t̲ l j	jat̲li:	to paint	t̲aljan
89	3040	t̲ m j	jat̲mi:	to silt	t̲amjan
90	3248	t̲ h̲ w	jat̲wu:	to cook	t̲ah̲wan
91	3249	t̲ h̲ j	jat̲ha:	to cook	t̲ahjan
92	3330	ᶜ d w	jaᶜdu:	to be unjust to run	ᶜadwan
93	3355	ᶜ r w	jaᶜru:	to befall	ᶜarwan
94	3367	ᶜ z w	jaᶜzu:	to be ascribed to	ᶜazwan
95	3368	ᶜ z j	jaᶜzi:	to be ascribed to	ᶜazjan
96	3384	ᶜ ʃ w	jaᶜʃu:	to be night-blind	ᶜaʃwan
97	3395	ᶜ s̲ j	jaᶜs̲a:	to disobey	ᶜas̲jan
98	3451	ᶜ l j	jaᶜla:	to rise	ᶜaljan
99	3484	ᶜ n j	jaᶜna:	to pay attention to	ᶜanjan
100	3530	ɣ θ w	jaɣθu:	to feel sick	ɣaθwan
101	3531	ɣ θ j	jaɣθi:	to feel sick	ɣaθjan
102	3531	ɣ θ j	jaɣθa: jaɣθi:	to talk a lot	ɣaθjan
103	3538	ɣ d w	jaɣdu:	to become	ɣadwan
104	3559	ɣ r w	jaɣru:	to glue	ɣarwan
105	3565	ɣ z w	jaɣzu:	to invade	ɣazwan
106	3590	ɣ f w	jaɣfu:	to sleep	ɣafwan
107	3604	ɣ l j	jaɣli:	to boil	ɣaljan
108	6324	ɣ θ w	jaɣu:θ	to help	ɣawθan
109	3761	f r j	jafri:	to lie	farjan
110	3779	f s w	jafsu:	to fart	faswan
111	3787	f ʃ w	jafʃu:	to spread	faʃwan
112	3845	f l w	jaflu:	to delouse	falwan
113	3848	f l j	jafli:	to delouse	faljan
114	3945	q b w	jaqbu:	to bend	qabwan
115	3970	q ð j	jaqði:	to have motes in the eye	qaðjan
116	4007	q r w	jaqru:	to follow	qarwan
117	4008	q r j	jaqri:	to host	qarjan
118	4021	q s w	jaqsu:	to be harsh	qaswan
119	4042	q s̲ w	jaqs̲u:	to become distant	qas̲wan
120	4046	q d̲ j	jaqd̲i:	to judge	qad̲jan
121	4058	q t̲ w	jaqt̲u:	to miaow	qat̲wan
122	4073	q f w	jaqfu:	to follow	qafwan
123	4089	q l j	jaqli:	to fry	qaljan
124	4121	q n w	jaqnu:	to become red	qanwan
125	4224	k b w	jakbu:	to fall	kabwan
126	4342	k s w	jaksu:	to sheathe	kaswan
127	4544	l h̲ w	jalh̲u:	to peel	lah̲wan

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128	4585	l ɣ w	jalɣu:	to smatter	laɣwan
129	4603	l q j	jalqa:	to encounter	laqjan
130	4634	l h w	jalhu:	to be amused	lahwan
131	4754	m h̲ w	jamh̲u:	to remove	mah̲wan
132	4756	m h̲ j	jamh̲i:	to erase	mah̲jan
133	4769	m d j	jamdi:	to stab	madjan
134	4808	m r j	jamri:	to be ungrateful	marjan
135	4838	m ʃ j	jamʃi:	to walk	maʃjan
136	4888	m k w	jamku:	to whistle	makwan
137	4927	m n w	jamnu:	to test	manwan
138	4928	m n j	jamna:	to test	manjan
139	4999	n ʔ j	janʔa:	to be distant	naʔjan
140	5026	n b w	janbu:	to turn away from	nabwan
141	5055	n dʒ w	jandʒu:	to make a secret conversation	nadʒwan
142	5066	n h̲ w	janh̲u:	to head for	nah̲wan
143	5103	n z w	janzu:	to need	nazwan
144	5117	n s j	jansa:	to forget	nasjan
145	5133	n ʃ w	janʃa:	to get drunk	naʃwan
146	5142	n s̲ w	jans̲u:	to catch from the forelock	nas̲wan
147	5150	n d̲ w	jand̲u:	to undress	nad̲wan
148	5172	n ᶜ j	jnaᶜa:	to announce the death of someone	naᶜjan
149	5183	n ɣ j	janɣi:	to babble	naɣjan
150	5200	n f j	janfi:	to deny	nafjan
151	5264	n h j	janha:	to prevent	nahjan
152	5350	h b w	jahbu:	to rise	habwan
153	5366	h dʒ w	jahdʒu:	to satirize	hadʒwan
154	5379	h d j	jahdi:	to guide	hadjan
155	5383	h ð j	jahði:	to ramble	haðjan
156	5399	h r w	jahru:	to hit with a baton	harwan
157	5402	h r j	jahri:	to wear out clothes	harjan
158	5429	h f w	jahfu:	to be mistaken	hafwan
159	5464	h m j	jahmi:	to wander	hamjan

Table 5.44: Finally-weak VNs of the pattern $C_1aC_2a{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	522	b d w	jabdu:	to appear	bada:ʔan
2	703	b q j	jabqa:	to stay	baqa:ʔan
3	751	b l w	jablu:	to test	bala:ʔan
4	751	b l j	jabla:	to wear off	bala:ʔan
5	803	b h w	jabhu:	to look beautiful	baha:ʔan
6	1172	dʒ z j	jadʒzi:	to recompense	dʒaza:ʔan
7	1214	dʒ l w	jadʒlu:	to uncover	dʒala:ʔan
8	2274	z dʒ w	jazdʒu:	to push gently	zadʒa:ʔan
9	1434	h̲ f w	jah̲fa:	to walk barefoot	h̲afa:ʔan
10	1658	x f j	jaxfa:	to be hidden	xafa:ʔan
11	1673	x l w	jaxlu:	to be empty	xala:ʔan
12	1878	d h j	jadha:	to be insightful	daha:ʔan
13	2325	z k w	jazku:	to increase	zaka:ʔan
14	2326	z k j	jazka:	to increase	zaka:ʔan
15	2474	s x w	jasxu:	to become generous	saxa:ʔan
16	2618	s m w	jasmu:	to rise up	sama:ʔan
17	2652	s n w	jasnu:	to lighten	sana:ʔan
18	2652	s n j	jasna:	to lighten	sana:ʔan
19	2969	s̲ b w	jas̲bu:	to long for	s̲aba:ʔan
20	2970	s̲ b j	jas̲ba:	to act boyishly	s̲aba:ʔan
21	3126	d̲ r j	jad̲ra:	to fight hard	d̲ara:ʔan
22	3330	ᶜ d w	jaᶜdu:	to be unjust	ᶜada:ʔan

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23	3368	ᶜ z j	jaᶜza:	to pay condolences	ᶜaza:ʔan
24	3484	ᶜ n j	jaᶜna:	to be exhausted	ᶜana:ʔan
25	1050	θ r w	jaθru:	to be rich	θara:ʔan
26	1969	ð k w	jaðku:	to spread a strong odor to intensify to be brilliant to immolate	ðaka:ʔan
27	2059	r dʒ w	jardʒu:	to hope	radʒa:ʔan
28	2073	r x w	jarxu:	to prosper	raxa:ʔan
29	3527	ɣ b j	jaɣba:	to be stupid	ɣaba:ʔan
30	3559	ɣ r w	jaɣra:	to love	ɣara:ʔan
31	3603	ɣ l w	jaɣlu:	to become expensive	ɣala:ʔan
32	3797	f d̲ w	jafd̲u:	to be empty	fad̲a:ʔan
33	3845	f l w	jaflu:	to delouse	fala:ʔan
34	3863	f n j	jafna:	to perish	fana:ʔan
35	4008	q r j	jaqri:	to host	qara:ʔan
36	4042	q s̲ w	jaqs̲a:	to become distant	qas̲a:ʔan
37	4046	q d̲ j	jaqd̲i:	to judge	qad̲a:ʔan
38	4089	q l j	jaqla:	to hate	qala:ʔan
39	4848	m d̲ j	jamd̲i:	to sign	mad̲a:ʔan
40	5055	n dʒ w	jandʒu:	to survive	nadʒa:ʔan
41	5220	n q w	janqa:	to be pure	naqa:ʔan
42	5248	n m w	janmu:	to grow	nama:ʔan
43	5250	n m j	janmi:	to increase	nama:ʔan

Table 5.45: Finally-weak VNs of the pattern $C_1aC_2aC_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	98	ʔ ð j	jaʔða:	to be harmed	ʔaðan
2	178	ʔ s w	jaʔsu:	to comfort	ʔasan
3	179	ʔ s j	jaʔsa:	to feel sorry	ʔasan
4	1052	θ r j	jaθra:	to be fertile	θaran
5	1245	dʒ n j	jadʒni:	to gather	dʒanan
6	1337	h̲ dʒ w	jah̲dʒa:	to be wise	h̲adʒan
7	1378	h̲ r w	jah̲ru:	to be advisable for	h̲aran
8	1434	h̲ f w	jah̲fa:	to walk barefoot	h̲afan
9	1573	x ð j	jaxða:	to be weakened	xaðan
10	1610	x z j	jaxza:	to be humiliated	xazan
11	1696	x n w	jaxnu:	to use impolite language	xanan
12	1697	x n j	jaxni:	to use impolite language	xanan
13	1856	d m j	jadmi:	to bleed	daman
14	1969	ð k w	jaðku:	to intensify	ðakan
15	2326	z k j	jazka:	to increase	zakan
16	2475	s x j	jasxa:	to become generous	saxan
17	2652	s n w	jasna:	to lighten	sanan
18	2766	ʃ dʒ w	jaʃdʒa:	to become sad	ʃadʒan
19	2813	ʃ r j	jaʃra:	to increase	ʃaran
20	2827	ʃ ð̲ j	jaʃð̲a:	to scatter	ʃað̲an
21	2969	s̲ b w	jas̲bu:	to long for	s̲aban
22	2970	s̲ b j	jas̲ba:	to act boyishly	s̲aban
23	2991	s̲ d j	jas̲di:	to get thirsty	s̲adan
24	3011	s̲ ɣ j	jas̲ɣa:	to decline from	s̲aɣan
25	3113	d̲ h̲ w	jad̲h̲a:	to be in the forenoon	d̲ah̲an
26	3126	d̲ r j	jad̲ra:	to fight hard	d̲aran
27	3385	ᶜ ʃ j	jaᶜʃa:	to be night-blind	ᶜaʃan
28	3462	ᶜ m j	jaᶜma:	to be blind	ᶜaman
29	3484	ᶜ n j	jaᶜna:	to be exhausted	ᶜanan
30	3559	ɣ r w	jaɣra:	to love	ɣaran

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31	3571	ɣ ʃ j	jaɣʃa:	to darken to sleep	ɣaʃan
32	3714	f d j	jafdi:	to sacrifice	fadan
33	3970	q ð j	jaqði:	to have motes in the eye	qaðan
34	4042	q s̲ w	jaqsa:	to become distant	qas̲an
35	4320	k r j	jakra:	to sleep	karan
36	4570	l ð̲ j	jalð̲a:	to blaze	lað̲an
37	4585	l ɣ w	jalɣa:	to smatter	laɣan
38	4624	l m j	jalma:	to be dark-skinned	laman
39	4634	l h w	jalha:	to divert from	lahan
40	5086	n d j	janda:	to be wet	nadan

Table 5.46: Finally-weak VNs of the pattern $C_1uC_2u{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	522	b d w	jabdu:	to appear	buduwwan
2	985	t l w	jatlu:	to follow	tuluwwan
3	1114	dʒ θ w	jadʒθu:	to bow	dʒuθuwwan
4	1476	h̲ m w	jah̲mu:	to be hot	h̲umuwwan
5	1493	h̲ n w	jah̲nu:	to feel compassion for	h̲unuwwan
6	1553	x b w	jaxbu:	to be extinguished	xubuwwan
7	1673	x l w	jaxlu:	to be empty to be devoted to	xuluwwan
8	1863	d n w	jadnu:	to get closer	dunuwwan
9	1969	ð k w	jaðku:	to intensify	ðukuwwan
10	2032	r b w	jarbu:	to increase	rubuwwan
11	2059	r dʒ w	jardʒu:	to hope	rudʒuwwan
12	2206	r n w	jarnu:	to look forward to	runuwwan
13	2274	z dʒ w	jazdʒu:	to push gently	zudʒuwwan
14	2325	z k w	jazku:	to increase	zukuwwan
15	2369	z h w	jazhu:	to be arrogant	zuhuwwan
16	2454	s dʒ w	jasdʒu:	to be calm	sudʒuwwan
17	2590	s l w	jaslu:	to forget	suluwwan
18	2618	s m w	jasmu:	to rise up	sumuwwan
19	2969	s̲ b w	jas̲bu:	to long for	s̲ubuwwan
20	3020	s̲ f w	jas̲fu:	to be pure	s̲ufuwwan
21	3113	d̲ h̲ w	jad̲h̲a:	to be in the forenoon	d̲uh̲uwwan
22	3217	t̲ f w	jat̲fu:	to float	t̲ufuwwan
23	3248	t̲ h w	jat̲wu:	to cook	t̲uhuwwan
24	3308	ᶜ t w	jaᶜtu:	to be arrogant	ᶜutuwwan
25	3311	ᶜ θ w	jaᶜθu:	to cause mischief	ᶜuθuwwan
26	3482	ᶜ n w	jaᶜnu:	to submit to	ᶜunuwwan
27	3330	ᶜ d w	jaᶜdu:	to be unjust	ᶜuduwwan
28	3530	ɣ θ w	jaɣθu:	to feel sick	ɣuθuwwan
29	3538	ɣ d w	jaɣdu:	to leave at lunch time to become	ɣuduwwan
30	3590	ɣ f w	jaɣfu:	to sleep	ɣufuwwan
31	3603	ɣ l w	jaɣlu:	to be excessive	ɣuluwwan
32	3689	f t w	jaftu:	to give a religious advice	futuwwan
33	3787	f ʃ w	jafʃu:	to spread	fuʃuwwan
34	4042	q s̲ w	jaqs̲u:	to become distant	qus̲uwwan
35	4121	q n w	jaqnu:	to become red	qunuwwan
36	4224	k b w	jakbu:	to fall	kubuwwan
37	5103	n z w	janzu:	to need	nuzuwwan
38	5248	n m w	janmu:	to grow	numuwwan
39	5350	h b w	jahbu:	to rise	hubuwwan

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Table 5.47: Finally-weak VNs of the pattern $C_1iC_2a{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	45	ʔ b j	jaʔba:	to refuse	ʔiba:ʔan
2	689	b ɣ j	jabɣi:	to commit adultery	biɣa:ʔan
3	789	b n j	jabni:	to build	bina:ʔan
4	1214	dʒ l w	jadʒlu:	to rinse	dʒila:ʔan
5	1347	h̲ d w	jah̲du:	to sing for camels	h̲ida:ʔan
6	1355	h̲ ð w	jah̲ðu:	to imitate	h̲iða:ʔan
7	1632	x s̲ j	jaxs̲a:	to be castrated	xis̲a:ʔan
8	2124	r d̲ w	jard̲a:	to be satisfied	rid̲a:ʔan
9	2045	r θ w	jarθu:	to commemorate	riθa:ʔan
10	2046	r θ j	jarθi:	to commemorate	riθa:ʔan
11	2365	z n j	jazni:	to fornicate	zina:ʔan
12	2434	s b j	jasbi:	to imprison	siba:ʔan
13	2813	ʃ r j	jaʃri:	to buy	ʃira:ʔan
14	2858	ʃ f j	jaʃfa:	to heal	ʃifa:ʔan
15	3126	d̲ r j	jad̲ra:	to fight hard	d̲ira:ʔan
16	3030	t̲ l j	jat̲li:	to paint	t̲ila:ʔan
17	3540	ɣ ð w	jaɣðu:	to feed	ɣiða:ʔan
18	3622	ɣ n j	jaɣna:	to become rich	ɣina:ʔan
19	3714	f d j	jafdi:	to sacrifice	fida:ʔan
20	4603	l q j	jalqa:	to encounter	liqa:ʔan
21	5366	h dʒ w	jahdʒu:	to satirize	hidʒa:ʔan

Table 5.48: Finally-weak VNs of the pattern $C_1iC_2a{:}C_3$at+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	45	ʔ b j	jaʔba:	to refuse	ʔiba:ʔatan
2	789	b n j	jabni:	to build	bina:jatan
3	985	t l w	jatlu:	to recite	tila:watan
4	1110	dʒ b w	jadʒbu:	to collect	dʒiba:watan
5	1111	dʒ b j	jadʒbi:	to collect	dʒiba:jatan
6	1245	dʒ n j	jadʒni:	to commit a crime	dʒina:jatan
7	1446	h̲ k j	jah̲ki:	to talk	h̲ika:jatan
8	1477	h̲ m j	jah̲mi:	to protect	h̲ima:jatan
9	1494	h̲ n j	jah̲ni:	to bend	h̲ina:jatan
10	2140	r ᶜ j	jarᶜa:	to care for	riᶜa:jatan
11	2196	r m j	jarmi:	to throw	rima:jatan
12	2297	z r j	jazri:	to mock	zira:jatan
13	2511	s r j	jasri:	to walk	sira:jatan
14	2527	s ᶜ j	jasᶜa:	to betray	siᶜa:jatan
15	3484	ᶜ n j	jaᶜna:	to pay attention to	ᶜina:jatan
16	4372	k f j	jakfi:	to have enough	kifa:jatan
17	4428	k n j	jakni:	to imply	kina:jatan
18	5235	n k j	janka:	to defeat	nika:jatan
19	5379	h d j	jahdi:	to guide	hida:jatan

Table 5.49: Finally-weak VNs of the pattern $C_1aC_2C_3$at+an

Number	Dictionary Entry	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1624	x ʃ j	jaxʃa:	to fear	xaʃjatan
2	1673	x l w	jaxlu:	to be devoted to	xalwatan
3	2520	s t̲ w	jast̲u:	to assail	sat̲watan
4	2658	s h w	jashu:	to forget	sahwatan
5	2873	ʃ k w	jaʃku:	to complain	ʃakwatan
6	2915	ʃ h w	jaʃhu:	to love	ʃahwatan

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7	2969	s̲ b w	jas̲bu:	to long for	s̲abwatan
8	3482	ᶜ n w	jaᶜnu:	to take by force	ᶜanwatan
9	3590	ɣ f w	jaɣfu:	to sleep	ɣafwatan
10	3591	ɣ f j	jaɣfa:	to sleep	ɣafjatan
11	4021	q s w	jaqsu:	to be harsh	qaswatan
12	4224	k b w	jakbu:	to fall	kabwatan
13	5026	n b w	janbu:	to be inconsistent with to turn away from	nabwatan
14	5055	n dʒ w	jandʒu:	to make a secret conversation	nadʒwatan
15	5076	n x w	janxu:	to be proud	naxwatan
16	5116	n s w	jansu:	to leave	naswatan
17	5133	n ʃ w n ʃ j	janʃa:	to get drunk	naʃwatan
18	5429	h f w	jahfu:	to be mistaken	hafwatan

Table 5.50: Finally-weak VNs of the pattern $C_1aC_2a{:}C_3at{+}an$

Number	Dictionary entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	803	b h w	jabhu:	to look beautiful	baha:ʔatan
2	1863	d n w	jadnu:	to get closer to become mean	dana:watan
3	1969	ð k w	jaðku:	to be brilliant	ðaka:watan
4	2073	r x w	jarxu:	to prosper	raxa:watan
5	1459	h̲ l w	jah̲lu:	to be sweet	h̲ala:watan
6	1459	h̲ l w	jah̲la:	to be sweet	h̲ala:watan
7	2474	s x w	jasxu:	to become generous	saxa:watan
8	2509	s r w	jasru:	to remove	sara:watan
9	2915	ʃ h w	jaʃhu:	to be delicious	ʃaha:watan
10	3126	d̲ r j	jad̲ra:	to fight hard	d̲ara:watan
11	3200	t̲ r w	jat̲ra:	to be soft	t̲ra:watan
12	3200	t̲ r w	jat̲ra:	to be soft	t̲ara:ʔatan
13	3385	ᶜ ʃ j	jaᶜʃa:	to be night-blind	ᶜaʃa:watan
14	3527	ɣ b j	jaɣba:	to be stupid	ɣaba:watan
15	4021	q s w	jaqsu:	to be harsh	qasa:watan
16	5086	n d j	janda:	to be wet	nada:watan
17	5220	n q w	janqa:	to be pure	naqa:watan
18	5220	n q w	janqa:	to be pure	naqa:ʔatan

Table 5.51: Finally-weak VNs of the pattern $C_1uC_2C_3{+}an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1747	d dʒ w	jaddʒu:	to become dark	dudʒwan
2	2104	r s w	jarsu:	to moor	ruswan
3	2171	r q j	jarqi:	to recite Quran over someone for healing and protection	ruqjan
4	2171	r q j	jarqa:	to advance	ruqjan
5	2590	s l j	jasla:	to cause to forget	suljan
6	2658	s h w	jashu:	to forget	suhwan
7	3011	s̲ ɣ j	jas̲ɣa:	to decline from	s̲uɣjan
8	3136	d̲ f w	jad̲fu:	to increase	d̲ufwan
9	3356	ᶜ r j	jaᶜra:	to get naked	ᶜurjan
10	4603	l q j	jalqa:	to encounter	luqjan

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Table 5.52: Finally-weak VNs of the pattern $C_1aC_2aC_3a{:}n+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2511	s r j	jasri:	to spread	saraja:nan
2	3312	ᶜ θ j	jaᶜθa:	to cause mischief	ᶜaθaja:nan
3	3531	ɣ θ j	jaɣθi:	to feel sick	ɣaθaja:nan
4	3531	ɣ θ j	jaɣθa:	to feel sick	ɣaθaja:nan
5	3604	ɣ l j	jaɣli:	to boil	ɣalaja:nan
6	5103	n z w	janzu:	to need	nazawa:nan
7	5383	h ð j	jahði:	to rave	haðaja:nan
8	5429	h f w	jahfu:	to be mistaken	hafawa:nan
9	5464	h m j	jahmi:	to wander	hamaja:nan

Table 5.53: Finally-weak VNs of the pattern $C_1uC_2i{:}C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2032	r b w	jarba:	to grow	rubijjan
2	3113	d̲ h̲ w	jad̲ha:	to be in the forenoon	d̲uh̲ijjan
3	3308	ᶜ t w	jaᶜtu:	to be very old	ᶜutijjan
4	3312	ᶜ θ j	jaᶜθa:	to cause mischief	ᶜuθijjan
5	3451	ᶜ l j	jaᶜla:	to rise	ᶜulijjan
6	3484	ᶜ n j	jaᶜna:	to pay attention to	ᶜunijjan
7	4603	l q j	jalqa:	to encounter	luqijjan
8	4634	l h w	jalhu:	to be distracted	luhijjan
9	4848	m d̲ j	jamd̲i:	to go away	mud̲ijjan

Table 5.54: Finally-weak VNs of the pattern $C_1iC_2aC_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	324	ʔ n j	jaʔni:	to slow down	ʔinan
2	751	b l j	jabla:	to wear off	bilan
3	2124	r d̲ w	jard̲a:	to be satisfied	rid̲an
4	2365	z n j	jazni:	to fornicate	zinan
5	2813	ʃ r j	jaʃri:	to buy	ʃiran
6	3622	ɣ n j	jaɣna:	to become rich	ɣinan
7	3714	f d j	jafdi:	to sacrifice	fidan
8	4008	q r j	jaqri:	to host	qiran
9	4089	q l j	jaqla:	to hate	qilan

Table 5.55: Finally-weak VNs of the pattern $C_1uC_2a{:}C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	713	b k j	jabki:	to cry	buka:ʔan
2	1057	θ ɣ w	jaθɣu:	to bleat	θuɣa:ʔan
3	1347	h̲ d w	jah̲du:	to sing for camels	h̲uda:ʔan
4	1803	d ᶜ w	jadᶜu:	to call	duᶜa:ʔan
5	2146	r ɣ w	jaɣu:	to grunt	ruɣa:ʔan
6	3779	f s w	jafsu:	to fart	fusa:ʔan
7	4888	m k w	jamku:	to whistle	muka:ʔan
8	5171	n ᶜ w	janᶜu:	to make a sound	nuᶜa:ʔan

Table 5.56: Finally-weak VNs of the pattern $C_1uC_2C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	689	b ɣ j	jabɣi:	to want	buɣjatan
2	1425	h̲ ð̲ w	jah̲ð̲a:	to have	h̲uð̲watan
3	1658	x f j	jaxfa:	to be hidden	xufjatan

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4	2969	s̲ b w	jas̲bu:	to long for	s̲ubwatan
5	3538	ɣ	jaɣdu:	to become	ɣudwatan
6	4428	k n j	jakna:	to call	kunjatan
7	4603	l q j	jalqa:	to encounter	luqjatan
8	5133	n ʃ w n ʃ j	janʃa:	to get drunk	nuʃwatan

Table 5.57: Finally-weak VNs of the pattern $C_1iC_2C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1425	h̲ ð̲ w	jah̲ð̲a:	to have	hiðwatan
2	1477	h̲ m j	jah̲mi:	put someone on a diet	h̲imjatan
3	1657	x f w	jaxfa:	to be hidden	xifwatan
4	1658	x f j	jaxfa:	to be hidden	xifjatan
5	1610	x z j	jaxza:	to be humiliated	xizjatan
6	3761	f r j	jafri:	to lie	firjatan
7	5133	n ʃ w	janʃa:	to get drunk	niʃwatan

Table 5.58: Finally-weak VNs of the pattern $C_1aC_2aC_3at+an$

Number	Dictionary entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	98	ʔ ð j	jaʔða:	to be harmed	ʔaða:tan
2	324	ʔ n j	jaʔni:	to slow down	ʔana:tan
3	1624	x ʃ j	jaxʃa:	to fear	xaʃa:tan
4	1969	ð k w	jaðku:	to immolate	ðaka:tan
5	2325	z k w	jazku:	to increase	zaka:tan
6	2873	ʃ k w	jaʃku:	to complain	ʃaka:tan
7	5055	n dʒ w	jandʒu:	to survive	nadʒa:tan

Table 5.59: Finally-weak VNs of the pattern $C_1uC_2C_3a:n+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	789	b n j	jabni:	to build	bunja:nan
2	1459	h̲ l w	jah̲la:	to be sweet	h̲ulwa:nan
3	2124	r d̲ w	jard̲a:	to be satisfied	rud̲wa:nan
4	2590	s l w	jaslu:	to forget	sulwa:nan
5	3208	t̲ ɣ j	jat̲ɣa:	to be despotic	t̲uɣja:nan
6	3330	ᶜ d w	jaᶜdu:	to be unjust	ᶜudwa:nan

Table 5.60: Finally-weak VNs of the pattern $C_1iC_2C_3a:n+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	56	ʔ t j	jaʔti:	to come	ʔitja:nan
2	2124	r d̲ w	jard̲a:	to be satisfied	rid̲wa:nan
3	3395	ᶜ s̲ j	jaᶜs̲a:	to disobey	ᶜis̲ja:nan
4	3571	ɣ ʃ j	jaɣʃa:	to come upon	ɣiʃja:nan
5	5117	n s j	jansa:	to forget	nisja:nan

Table 5.61: Finally-weak VNs of the pattern $C_1uC_2u:C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	43	ʔ b w	jaʔbu:	to become a father	ʔubuwwatan
2	83	ʔ x w	jaʔxu:	to have a brother	ʔuxuwwatan
3	3689	f t w	jaftu:	to be youthful	futuwwatan
4	5026	n b w	janbu:	to be inconsistent with	nubuwwatan

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Table 5.62: Finally-weak VNs of the pattern $C_1uC_2aC_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	713	b k j	jabki:	to cry	bukan
2	2511	s r j	jasri:	to walk	suran
3	4603	l q j	jalqa:	to encounter	luqan
4	5379	h d j	jahdi:	to guide	hudan

Table 5.63: Finally-weak VNs of the pattern $C_1aC_2i{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1477	h̲ m j	jah̲mi:	to be hot	h̲amijjan
2	3571	ɣ ʃ j	jaɣʃa:	to darken	ɣaʃijjan
3	5172	n ˤ j	jnaˤa:	to announce the death of someone	naˤijjan

Table 5.64: Finally-weak VNs of the pattern $C_1iC_2i{:}C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2590	s l w	jasla:	to forget	silijjan
2	3308	ˤ t w	jaˤtu:	to be excessive	ˤitijjan

Table 5.65: Finally-weak VNs of the pattern $C_1aC_2i{:}C_3$at+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	98	ʔ ð j	jaʔða:	to be harmed	ʔaðijjatan

Appendix (D): Doubly-weak VNs

Table 5.66: Doubly-weak VNs of the pattern $C_1aC_2C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1990	ð w j	jaðwi:	to wither	ðawjan
2	1990	ð w j	jaðwi:	to wither	ðajjan
3	2241	r w j	jarwi:	to quench	rajjan
4	2385	z w j	jazwi:	to dismiss	zajjan
5	2932	ʃ w j	jaʃwi:	to barbeque	ʃajjan
6	3155	d̲ w j	jadwi:	to join	d̲ajjan
7	3262	t̲ w j	jat̲wi:	to fold	t̲ajjan
8	3632	ɣ w j	jaɣwi:	to deviate from what is right	ɣajjan
9	4477	k w j	jakwi:	to burn	kajjan
10	4664	l w j	jalwi:	to bend	lajjan
11	4664	l w j	jalwi:	to bend	lawjan
12	5564	w h̲ j	jah̲i:	to inspire	wah̲jan
13	5568	w x j	jaxi:	to intend	waxjan
14	5590	w r j	jari:	to inflame	warjan
15	5615	w ʃ j	jaʃi:	to adorn to inform against	waʃjan
16	5646	w ˤ j	jaˤi:	to be aware of	waˤjan
17	5655	w f j	jafi:	to fulfill to increase	wafjan
18	5665	w q j	jaqi:	to protect	waqjan
19	5687	w l j	jali:	to be close	waljan
20	5692	w n j	jani:	to abandon	wanjan
21	5701	w h j	jahi:	to be weak	wahjan

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Table 5.67: Doubly-weak VNs of the pattern $C_1uC_2i:C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	372	ʔ w j	jaʔwi:	to accommodate	ʔuwijjan
2	1083	θ w j	jaθwi:	to settle	θuwijjan
3	1709	x w j	jaxwi:	to be empty	xuwijjan
4	1901	d w j	jadwi:	to make loud noise	duwijjan
5	1990	ð w j	jaðwi:	to wither	ðuwijjan
6	2385	z w j	jazwi:	to dismiss	zuwijjan
7	3155	d̲ w j	jadwi:	to join	d̲uwijjan
8	5490	h w j	jahwi:	to fall	huwijjan
9	5701	w h j	jahi:	to be weak	wuhijjan

Table 5.68: Doubly-weak VNs of the pattern $C_1iC_2a:C_3at$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2241	r w j	jarwi:	to narrate	riwa:jatan
2	3632	ɣ w j	jaɣwi:	to deviate from what is right	ɣiwa:jatan
3	3632	ɣ w j	jaɣwa:	to deviate from what is right	ɣiwa:jatan
4	5615	w ʃ j	jaʃi:	to inform against	wiʃa:jatan
5	5665	w q j	jaqi:	to protect	wiqa:jatan
6	5687	w l j	jali:	to rule	wila:jatan

Table 5.69: Doubly-weak VNs of the pattern $C_1aC_2aC_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1281	dʒ w j	jadʒwi:	to miss dreadfully	dʒawan
2	3155	d̲ w j	jad̲wa:	to be weak	d̲awan
3	3262	t̲ w j	jat̲wa:	to become thin	t̲awan
4	5289	n w j	janwi:	to depart	nawan
5	5490	h w j	jahwa:	to love	hawan

Table 5.70: Doubly-weak VNs of the pattern $C_1aC_2a:C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1083	θ w j	jaθwi:	to settle	θawa:ʔan
2	1534	h̲ j j	jah̲ja:	to be bashful	h̲aja:ʔan
3	1709	x w j	jaxwi:	to be empty	xawa:ʔan
4	3514	ᶜ j j	jaᶜja:	to be incapable of	ᶜaja:ʔan
5	5655	w f j	jafi:	to fulfill to increase	wafa:ʔan

Table 5.71: Doubly-weak VNs of the pattern $C_1aC_2a:C_3at$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	1514	h̲ w j	jah̲wi:	to include	h̲awa:jatan
2	3632	ɣ w j	jaɣwi:	to deviate from what is right	ɣawa:jatan
3	3632	ɣ w j	jaɣwa:	to deviate from what is right	ɣawa:jatan
4	5687	w l j	jali:	to rule	wala:jatan

Table 5.72: Doubly-weak VNs of the pattern $C_1iC_2C_3$+an

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Glos[s]	Verbal noun
1	2241	r w j	jarwi:	to quench	rijjan
2	3514	ᶜ j j	jaᶜja:	to be incapable of	ᶜijjan

Table 5.73: Doubly-weak VNs of the pattern $C_1iC_2C_3at+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	5289	n w j	janwi:	to intend	nijjatan
2	5574	w d j	jadi:	to give blood money	dijatan
3	5615	w ʃ j	jaʃi:	to adorn	ʃijatan

Table 5.74: Doubly-weak VNs of the pattern $C_1uC_2a:C_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	3503	ᶜ w j	jaᶜwi:	to bark	ᶜuwa:ʔan

Table 5.75: Doubly-weak VNs of the pattern $C_1iC_2aC_3+an$

Number	Dictionary Entry number	Consonantal root	Imperfective verb	Gloss	Verbal noun
1	2686	s w j	jaswa:	to draw oneself up	siwan

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The Deviated Role of the Online Home-Delivered Assessment during the has been Pandemic of Covid-19: A Case Study of the Experience of Palestine Technical University – Kadoorie (PTUK) in Assessing English Language Introductory Courses

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Abstract- *The aim of this study was to investigate the* deviated role of the online home-delivered assessment during the has been pandemic situation of the Covid-19, and also to investigate, from the researcher's point of view, and as a case study , the experience of Palestine Technical University – Kadoorie (PTUK) in assessing and evaluating English language introductory courses, namely, English (1) no. (15200106), English (2), no. (15200112), and Remedial English, no. (15200099). To achieve the purpose of this study, the researcher followed a qualitative analytical approach which was implemented for the available related research, which was casted in a relative chronological order, in a survey-like orientation. Findings of this study indicate that the role of the assessment process, through the online home-delivered mode, has been deviated and perverted because of the fact that a considerable number of students, learners, and exam-takers, all over the world, have been able to resort to various cheating practices and strategies that have negatively affected the maxims of reliability, validity, fairness, and equality; these maxims have long been supposed to be safeguarded by and through any assessment process, and for them to be profoundly violated by the cheating practices, in the online home-delivered assessment process, resulted in doubtful educational judgments, unreal grades, misleading feedback, and, in addition, an anticipated measurable learning outage and loss.

Keywords: *online home-delivered assessment, evaluation process, cheating, english language courses, exam-takers, moral outage, ethical loss, learning outage, covid-19.*

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The Deviated Role of the Online Home-Delivered Assessment during the has been Pandemic of Covid-19: A Case Study of the Experience of Palestine Technical University – Kadoorie (PTUK) in Assessing English Language Introductory Courses

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Keywords: online home-delivered assessment, evaluation process, cheating, english language courses, exam-takers, moral outage, ethical loss, learning outage, covid-19.

I. Introduction

Educational institutions all over the world were taken by surprise during the early wave of Covid-19, and, subsequently, as stated by Jiao & Lissitz (2020)" the pandemic leads to a lot of issues related to instruction, learning, and assessment." These institutions, especially universities and colleges, were steered towards an exclusive goal of insuring the continuity of the teaching-learning process through resorting instantly to an online home-delivered mode of education, which was completely enhanced, the researcher believes, while overpassing some vital related conditions and prerequisites such as educators' readiness and attitudes towards such a move, students' readiness, attitudes, and the amount of connectivity to the internet students can have at their disposal, and most importantly, as far as this study is concerned, the wide risk margins of the home-delivered forms of assessment and evaluation: the first margin is the strong possibility of not providing authentic assessment and evaluation processes that are as valid, reliable, and fair as they are supposed to be , and the second margin is the jeopardizing cheating practices that have been enhanced by a considerable number of students and exam-takers all over the world; maxims of validity, reliability, and fairness are critical, in this sense, because any assessment and evaluation processes have long been supposed to safeguarde them by enabling educators to grant whomever what she\he deserves in accordance with individual differences and the variable levels of distinguishability among students and exam –takers; in this sense, and also as far as this study is concerned, assessment and evaluation

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processes carry special concern because they are viewed as indispensable pillars upon which the whole educational process is built, and, in addition, as essential indicative calibers of how far learning has reached so far, enabling educators to spot weakness or else strength of the whole process in order to take related judgments; Sandars, Correia, Dankbaar, de Jong, Goh, Hege, & Pusic (2020, cited in Simamora, 2020) have stated that "Evaluation is essential for sustainability since it provides insights about the extent to which new approaches are achieving their intended and potential benefits, and also the variety of factors that enable and constrain effective online learning."

The educational process in Palestine Technical University –Kadoorie (PTUK), where the researcher has been teaching various English introductory courses since 2004, and as the case has been in most universities and colleges elsewhere, has also been affected by the sudden and disrupting impact of the Covid-19 situation and, as a result, its demanding effects; to ensure the continuity of education in (PTUK), a complete resort to an online home-delivered mode of learning and assessment, which has been orchestrated to include all courses , with no exceptions, including the English introductory courses, i.e. English (1) no. (15200106), English (2), no. (15200112), and Remedial English, no. (15200099). PTUK (LMS)- Moodle)and the (Zoom) application have been mainly used as a carrier to home-deliver such a mode of learning and assessment; English introductory courses have mainly been home-delivered and assessed using the (PTUK (LMS)-Moodle) in spite of the fact that - (LMS)-Moodle), as proposed by a bulk of the available related literature, constitutes a learning environment and does not much correspond with summative assessment (Jabsheh (2020); Jabsheh (2020) has added that" using (LMS)-Moodle) with an only multiple-choice matrix to measure students' achievement in English language courses may not be a dependable methodology because the (LMS)-Moodle) is a problem in itself and can have an impact on the reliability, validity, and the security of the exam." Moreover, it can be proposed that the home-delivered mode, which, expediently, has been facilitated by Palestine Technical University–Kadoorie (PTUK), has also been propelled by the priority of ensuring the continuity of the educational process rather than considering , as a priority, the risk margins of the online home–delivered assessment and evaluation processes endangered by the nearly sure potentiality of the cheating practices, which had been exploited by a considerable number of students of the (PTUK) as well as students of most universities and colleges all over the world. This odd reality, in regard to the home-delivered assessment and evaluation processes, has resulted in, depending on the researchers' mere experience, another odd reality in the form of unusual higher marks and averages in English language courses, though English is taught, in PTUK, as a foreign language; these unusual marks and averages, as far as the researcher has opined, are enough indicators that cheating practices cannot be denied, and that more investigation and review is highly needed in regard to the role(s) of the assessment and evaluation procedures during the has been pandemic situation of the Covid-19.

Cheating practices, which have been exploited by a considerable number of students and exam-takers in the online home-delivered assessment formats, in colleges and universities all over the world and not only in (PTUK), the researcher believes, are as risky and dangerous to the educational process and learning as Covid-19 virus to our health as they –cheating practices- have deviated and perverted the educational and moral roles of the assessment process, as instead of being a positive tool of developing the whole educational and learning processes through providing formidable judgments and real insights into students and learners' levels of achievement, they have facilitated, as proposed by previous research, an educational - learning outage as most of the educators' judgments have been mostly fake and do not reflect the reality of the teaching and learning processes; moreover, and alarmingly, cheating practices, which have been exploited by a considerable number of students and exam-takers, in the online home-delivered assessment formats, has perverted the role of the assessment and evaluation process as instead of being tools to promote and elevate human values such as fairness, justice, and equality, they have reinforced ethical loss and moral outage as cheating itself, the researcher believes, should be classified as a deviated and perverted form of a normal learning behavior, and that the tendency to cheat, from the part of students , learners, and exam-takers, especially in the absence of physical monitoring, amounts to a moral malefaction.

II. Statement of the Problem

During the has been Covid-19 pandemic situation, the bulk of the previous research acknowledged that the online home delivered mode of assessment and evaluation, especially in universities and colleges all over the world as well as in Palestine, has caused a heavy toll on the educational process: the validity, reliability, credibility and fairness of this mode of assessment and evaluation have been under deep questioning and doubt because of the cheating practices that have been exploited by a considerable number of students, learners and exam-takers all over the world; educators ,elsewhere as well as in (PTUK), have not been able to firmly confirm that cheating practices had not been adopted by a considerable number of students, learners and exam-takers, while in some occasions, alas, under the mere eyes of parents or family members. The undeniable and nearly

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certain occurrence of cheating practices, in this sense, has yielded a perverted and deviated context of the role of the assessment and evaluation processes as, during the pandemic situation of Covid-19, assessment and evaluation formats have provided fake judgments about how far learning has reached and how far goals have been achieved, and instead of safeguarding maxims such fairness, equal opportunities, just judgments, and real grading, they were repeatedly violated. Accordingly, this deviated perverted role of online home-delivered mode of assessment and evaluation processes is proposed to cause two facets of loss and outage: the first one is in the form of a relative measurable educational loss due the fact that the majority of the attained marks and averages have not reflected the real level of students' achievement and competency, and the second one, as proposed by this study, in the form of moral and ethical outage due to the fact that resorting to cheating practices, from the part of students, learners, and exam-takers, alarmingly signals a perverted learning behavior that should be viewed totally odd, especially in the absence of physical proctoring.

III. The Significance of the Study

One aspect of the significance of this study lies in the fact that its investigative scope, as far as the researcher knows, has never been surpassed by previous research as to approach the deviated role of the home-delivered mode of assessment and evaluation processes during the has been pandemic situation of the Covid-19; during the has been pandemic situation of Covid-19, the bulk of the available related research, generally, addressed cheating practices and their impact on the validity, reliability, credibility and fairness of the online home-delivered assessment and evaluation processes, and, as a result, proposed a nearly sure amount of loss in the form of learning outage, but although the fact that this kind of learning outage lies not within the investigative scope of this study, and although this study goes with the importance of more investigating that kind of learning outage, it considers the ethical and the moral outage as equally important, to be approached, as the learning outage, and additionally views both types of outages to be a kind of a collateral result of the cheating practices in the online home-delivered assessment and evaluation processes; moreover, some previous related literature such as Yamamoto & Ananou (2015, cited in Salhab, Hashaikeh, Najjar, Wahbeh & Affouneh, 2021) concludes that "There is a lack of existed research that is intended to stimulate ethical values beside cognitive abilities and creativity." Alshehri, Mordhah, Alsibiani, Alsobhi & Alnazzawi (2020, cited in Salhab , Hashaikeh, Najjar, Wahbeh & Affouneh, 2021) further explains that "Numerous problems in society in general surfaced while implementing online learning, issues around ethical assessment of student work and concerns about academic misconduct have been amplified." As also cited by Salhab, Hashaikeh, Najjar, Wahbeh & Affouneh (2021) it was concluded that "Palestinian code of ethics for teaching profession revealed a lack of online learning ethics, thus, the purpose of the current study was to introduce an online learning code of ethics in the crisis learning environment." As a result, again, this study can steer the attention of educators, English language teachers, curriculum planners, and educational psychologists towards this ethical and moral outage which was caused by the act of resorting to cheating practices from the part of the students and exam-takers, in nearly all higher education institutions, all over the world.

IV. Literature Review

The purpose of this literature review is to augment the main argument and proposal of this study; accordingly, this review is sub-divided into three sections, and casted in a relative chronological order; each section of this review is provided with a discretionary epitome distilling the main argument of each section: The first section reviews the status of English Foreign Language (EFL) online home-delivered evaluation and assessment processes during the Pandemic situation of the Covid-19, while the second section generally reviews the status of online home-delivered assessment and evaluation during the pandemic situation of the Covid-19, and the final section classifies some important counter cheating procedures an techniques in the online home-delivered assessment and evaluation during the pandemic situation of the Covid-19.

a) *The status of (EFL) Online home-delivered evaluation and assessment processes during the Pandemic situation of the Covid-19.*

Lin & Warschauer (2015, cited in Atmojo & Nugroho, 2020) indicate that "a research on online language learning carried out during a pandemic is very rarely found, especially in English as Foreign Language (EFL) context in secondary school settings as most online language learning researches have been done in tertiary education level." Atmojo & Nugroho (2020) conclude that "It enriches the knowledge of how EFL secondary school teachers in Indonesia carry out online EFL learning in a sudden and completely unprepared situation due to the COVID-19 pandemic." Destianingsih & Satria (2020) sum up that" There are several tools that have been used during English online learning such as Zoom, Google Classroom, Edmodo, Google Meet, E-mail, WhatsApp. However, to replace the physical meeting with the students, Zoom is one

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of the effective tools that can be used as virtual face to face meeting. The teachers provide all learning materials that can be accessed by the students in online English learning and create interactive and convenient atmosphere during online class. "Khatoony & Nezhadmehr (2020) conclude that" Online learning has some problems like lack of learners' awareness toward materials. I think EFL learners cannot concentrate on the materials that we send them. Additionally, although computer aided systems are very well-known for evaluation, reliability of learners' answers can be under question in some parts." Khatoony & Nezhadmehr (2020) also add that "Online learning has some problems like lack of learners' awareness toward materials. I think EFL learners cannot concentrate on the materials that we send them. Additionally, although computer aided systems are very well-known for evaluation, reliability of learners' answers can be under question in some parts." Astuti & Solikhah (2021) conclude that "teachers believe that teaching English though online system is hard to apply because the internet quota is limited and students do not have access for the online platforms such as internet, email, virtual. Students have the access only for the android service, that use only Google meet or google classroom that are free of charge." Astuti & Solikhah (2021) also add that "In general, teaching English online is perceived problematic. The availability of support system and internet quota is the main problem. The aims of teaching are wrongly perceived in that knowledge competence is to teach reading and listening. In addition, the skill competence is perceived to teach speaking and writing. Teaching methods applicable for online teaching are basically Google meet and Google classroom because students have only android to access the online teaching. The evaluation process is fully relied on Google."

To sum up, the previous review confirmed that studies investigating online language learning during the pandemic are rarely found, especially in English as a Foreign Language (EFL) setting; teaching English online is perceived as to be problematic because of various reasons: *First,* in most cases, EFL learners could not be able to concentrate on the material that is sent to them, via online and in a home-delivered fashion, because of some disrupting elements and distractors: first, some number of students did have technical problems in accessing the internet or they, even, could not have cellphones or other devices to be online, and, as a result, they resorted to using parents' devices which may not be as effective and compatible to the requirements of online language learning and testing as they were presumed to be; *second,* online language teaching and learning was confined to few online applications such as Zoom, Google Classroom, Edmodo, Google Meet, E-mail, and WhatsApp, but, Zoom, exclusively was considered to be the most effective application that could be used as virtual face to face meeting; *third,* the previous review confirmed that the (ELT) assessment and evaluation processes, during the has been pandemic situation of Covid-19, has mostly relied on some compatible applications that are centrally connected with the search engine (Google), and this heavy dependence on such a mode places reliability of the students answers' under deep questioning and doubt, and, moreover, poses a real challenge of how to maintain the validity, fairness, and authenticity of the whole assessment process; fourth, by the same token, and most importantly, the previous review concluded that establishing a valid and reliable (ELT) formats of assessment during the pandemic outbreak, which are, to some extent, similar to those of pre-pandemic situation has been proved to be so hard and problematic; moreover, it should be added that it has been so difficult for (EL) educators to guarantee safe and efficient counter-cheating measures while using the online home-delivered mode. Although the previous review mostly considered many setbacks in (ELT), especially in a sudden and unprepared situation which has been encountered since the pandemic outbreak, some research indicated some proposed successful endeavors of online (EFL) teaching, learning, and testing.

b) *The status of online home-delivered assessment and evaluation during the pandemic situation of the Covid-19.*

Robles & Braathen (2002, cited in Tartavulea & Petre, 2020) indicate that "online assessment requires a more ongoing systematic approach than traditional ones." *Thiele (2003,* cited in Syahrin & Salih, 2020) states that "there is also an urgent need to accurately assess the quality of the online course delivery." *Downing & Haladyna (2004,* cited in Rahim, 2020) concludes that" Validity is equally important in online assessments. Threats to validity include context under-representation (CU), which relate to issues of sampling and blueprinting, and construct-irrelevant variance (CIV), which relate to item quality, passing score determination and integrity of assessments, including issues of cheating and examination security."

Pallof and Pratt in Gudea (2008, Cited in Destianingsih & Satria, 2020) state "that teaching online isn't always easy, as it calls for guidance and difficult work. It is concluded that instructors should assume to spend extra time in developing the materials and activities, pupil assessment, and other direction related to online teaching." *Baran (2011); Wang & Torrisi-Steele (2015,* as cited in Motala & Menon, 2020) indicate that "Online teaching requires planning, understanding of curriculum demands and assessing strategies for teaching and learning, assessing technologies to be deployed, determining the assessment regime taking into account the need for

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robustness, integrity and validity of assessments, and review and evaluation." *Gikandi, Morrow & Davis (2011,* cited in Tuah & Naing, 2021) concludes that "One of the critical issues is the validity and reliability of assessment using online platforms that met the intended purposes" Richardson (2015, Cited in Tuah & Naing, 2021) confirm that "Before educators decide to go for online examination, they may consider other alternative assessment options such as assignments, writing reports (that require students to choose different titles and different settings from classroom exercises), or open-book examination. Evidence shows that assessment by coursework alone or by blending coursework and examinations tends to produce higher marks than assessment by examinations alone." *Walsh (2015);* Sandars (2010, cited in Tuah & Naing, 2021) conclude that " the disadvantages of online assessment include software costs to develop educational content and supporting infrastructure, for example, internet servers, data storage, computer-aided learning rooms." Walsh (2015); Sandars (2010, cited in Tuah & Naing, 2021) also add that "Other problems of online assessment are unreliable systems (due to poor network connectivity, hardware, software, power supply), lack of online and physical security systems to safeguard assessments and cheating." vd Westhuizen (2016) and Types of online assessments [Internet] (2020, cited in Rahim, 2020) confirms that "Formats or types of online assessments can initially be bewildering but as discussed above they can be grouped according to Bloom's taxonomy levels, formative versus summative, or both." *Aliyyah, Rachmadtullah, Samsudin, Syaodih, Nurtanto & Tambunan (2020)* conclude that "A teacher cannot fairly conduct assessments, which include cognitive, affective, and psychomotor aspects in an online environment. Indeed, teachers often felt that proper assessment of the cognitive aspect was challenging to do fairly because of the intervention of parents who helped provide answers to the assignments/tests given by a teacher. Assessment of psychomotor aspects is often better. Assignments such as singing or practicing specific movements can be assessed better by a teacher because these are based on student abilities without parental intervention when recording." Aliyyah, Rachmadtullah, Samsudin, Syaodih, Nurtanto & Tambunan (2020) *add that it is "difficult to assess cognitive aspects because of the intervention of parents to provide answers to their children, so the assessment is not fair enough to describe the understanding of students."* Destianingsih & Satria (2020) point out that "most of the students live in different districts in which the accesses of the internet are restricted. This situation makes the students to find the best spot to get better Internet signal." *Flaherty (2020, cited in Adedoyin & Soykan, 2020)* adds that "Kevin Gannon, the Director of Center for Excellence in Teaching, Grand View University in a contemporary publication, has opined that he's a strong advocate of considerable modification of grading systems during this pandemic because it is unimaginable to claim that learners are getting the same learning experiences and chances through online learning during this pandemic and this will make assessment more complicated." *Jiao & Lissitz (2020)* concludes that" Cheating on the tests and on the homework is also likely to be a problem and analytic and observational approaches based on modern online video devices will be offered in this area, as well." *Korkmaz & Toraman (2020)* sum up that "The problems the educators experienced during COVID-19 pandemic in Turkey are about students' internet connection problems, lack of educator-student interaction, not being able to make a reliable assessment of learning, lack of knowledge about how to evaluate the learners' knowledge and skills, not being able to provide skills teaching, not being able to reach all the learning outcomes determined for learning, difficulty in providing feedback to students, difficulty in teaching according to the individual interests and abilities of the students, lack of student motivation, school/university administrators' attitude and behaviors towards educators who teach online during the obligatory online education period." *Korkmaz & Toraman (2020)* adds that "both state/public and private school/university educators stated that reliable assessment could not be made in the online education environment." *Motala, & Menon (2020)* concludes that" Assessment became a major challenge, and academic regulations were changed to emphasize continuous formative assessment." *Purwanto, Asbari, Fahlevi, Mufid, Agistiawati, Cahyono & Suryani (2020, Cited in Supriyanto, Hartini, Irdasari, Miftahul, Oktapiana & Mumpuni, 2020)* state that "Teachers also have problems related to work motivation due to the emergence of the burden of paying for electricity, internet costs, and excessive data security problems due to WFH." *Putri, Purwanto, Pramono, Asbari, Wijayanti & Hyun (2020)* conclude that "the three aspects of assessment, namely assessing, recording, and reporting, may look different in term four of the academic year 2020. Teachers must find a way to give feedback and provide an authentic assessment under the current unique circumstance. Lastly, boredom and social life aspects of students and teachers are another concern as home learning gets longer than expected."

Rahim (2020) concludes that "Cheating is a concern especially in summative assessments in professional courses such as medicine. Research data on cheating in online assessments is inconclusive. On the one hand, cheating seems to be a real cause for concern." *Rahim (2020); Rowe (2004)* cite that "reports of approximately 70% of American high school seniors admitting to cheating. On the other hand, even if the prevalence is high, it had not been conclusively shown that cheating in online environments is significantly

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more prevalent than in conventional assessments ((Boitshwarelo, Reedy & Billany (2017) and The realities of cheating in online classes & exams [Internet] (2020)), and Cheating in online assessment is not easier than other assessment situations (The realities of cheating in online classes & exams [Internet]2020); in fact, proctoring online examinations via human and software means have become big business (Krueger K. How to catch students cheating on online tests [Internet].) and cheating have actually become more difficult (Ross (2020))." *Rahim (2020); Westhuizen (2016, cited In Tuah & Naing, 2021)* state "institutional and educator readiness are essential requirements of the online assessment. Institutional readiness refers to institutional policies, resources and practices, for instance, internet coverage and availability of the IT support team. Internet access is a critical infrastructure for online teaching. IT support team is an essential resource during the transition from traditional to online teaching in many HEIs. Educator readiness refers to educator's acceptance and 'buy-in' when changing to online teaching and learning that include taking up training for teaching methods, assessment and online applications." Vala, Vachhani & Sorani (2020) conclude that "medical students prefer traditional teaching for theory and practical classes." *Muhammad & Ockey (2021)* state that "some of the challenges that high-stakes standardized testing teams face in trying to maintain a high standard of test validity when moving an assessment to at-home delivery." Tuah & Naing (2021) conclude that "The online learning helps to minimize disruptions on teaching and compromising students' learning outcomes; however, there is limited evidence on effective online assessment methods used at Higher Education Institutions during pandemics." Tuah & Naing (2021) confirm that "The online and blended learning in higher education confronted educators with several critical issues related to teaching, learning and assessment in an unconventional environment." *Richardson (2015, Cited in Tuah & Naing, 2021)* concludes that "Potential problems with course work assessment include collusion, plagiarism and personation (in particular 'contract cheating' through the use of tailored essays). Gupta RP. "Educators may use online plagiarism checking platform", Harland T, Wald N. which are freely available at present, such as DupliChecker and Grammarly. Also, educators must recognise that there were differences between sciences and arts-type subjects which indicate distinctive assessment practices. Tuah & Naing (2021) Nonetheless, we recognize that there is no cheat-proof online and paper-based examinations. In the rapidly shifting situation of COVID-19 pandemic and uncertainties globally, educators in HEIs must explore the best approaches to curtail disruptions on students teaching and learning, and assessment. *Zhang, Wang, Yang & Wang (2020, Cited in Supriyanto, Hartini, Irdasari, Miftahul, Oktapiana & Mumpuni, 2020)* state that "In China, difficulties arise in the learning process due to weaknesses in online learning infrastructure, the inexperience of teachers, information gaps, complex environments at home, and unequal learning outcomes." Tuah & Naing (2021) conclude that "primary challenge for online examination is to prevent or control potential cheating among students." *Chirumamilla, Sindre & Nguyen-Duc (2020, cited In Tuah & Naing, 2021).* shows distinctive cheating practices during online examination such as impersonation, forbidden aids, peeking, peer collaboration, outside assistance and student–staff collusion. *Tuah & Naing (2021)* The common possible cheating practices during the mock online examination include screen sharing among candidates, using multiple monitors, using a mobile phone, using Bluetooth technology headset, impersonation, taking a screenshot and sending to friends, and traditional ways such as notes on their palms or attached notes to computer monitors. *Farrah & al-Bakry (2020) conclude that* 'Evaluation methods (e.g. exams) were not accurate due to easy means of cheating. This shows that cheating during e-learning exams is an easy mean, which refers to serious danger that students will not trust e-learning as an accurate system for their grades. In addition to that, a university degree is not also accurate enough to be adopted which leads to a useless university degree. Universities need to use a surveillance system for students' fairness." Lally, The 18 Best Free Survey Tools for Customer Feedback Drive (2020, Cited in Tuah & Naing (2021) mentions that "The advantages of online assessment include costs saving (such as for printing costs, examination spaces, travel) and use of freely available online tools, e.g. SurveyMonkey, Google Form, HubSpot Forms, CANVAS free for teachers." Walsh (2015, Cited in Tuah & Naing, 2021) concludes that "The online assessment allows the delivery of constant and real-time feedback that can be given at a time and place appropriate for both the student or the educator." Reed, Shell, Kassis, Tartaglia, Wallihan, Mahan (2014, cited in Tuah & Naing, 2021) Smith & propose that "The online quiz is a method to assess the knowledge that promotes self-directed learning and may improve the effectiveness of teaching." Walsh (2015, Cited in Tuah & Naing, 2021) claim that "For viva-voce or actual clinical examinations conducted over online (via skype or zoom) would enable the assessor to observe and interact from a distance location, thus reduce costs (such as accommodation, travel and subsistence for both examiner and student) and eliminate difficulties of traditional clinical assessments (e.g. examination halls and printed paper) in medical education." Betlej (2013); Spivey & McMillan (2014, cited in Tuah & Naing , 2021) conclude that "the benefits of using online assessments are reduction of paper usage, decreased concerns over the security of transporting test papers, flexible time and

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venue, continuous feedback and random selection and reproducibility of exam questions." Gikandi, Morrow & Davis (2011, Cited in Tuah & Naing, 2021) indicate that "The value of online formative assessment tools includes enhancement of learner engagement and the creation of a learning community."

To sum up, the previous review indicated that there is limited evidence that online assessment methods, at Higher Education Institutions during the pandemic situation of Covid-19, were as effective as they had been supposed to be; however, online assessment practices are not an easy task as they need more time than the traditional ones and require more systematic orientations, in the sense that they – practices of online assessment- should be carefully and previously decided and planned. Online assessment, especially the home-delivered format, may not support any kind of control over students or learners' potential cheating practices, which have significantly been more prevalent in online modes than in conventional ones, and which represent a real threat to the validity and reliability of the formative and summative forms of assessment; the previous review, mainly Tuah & Naing (2021) and Chirumamilla, Sindre & Nguyen-Duc (2020), summarizes some of the cheating practices that online - exam takers normally exploit during formative or summative assessment: impersonation, forbidden aids, peeking, peer collaboration, outside assistance and student–staff collusion, screen sharing among candidates, using multiple monitors, using mobile phones, using Bluetooth technology headset, taking a screenshot and sending to friends, traditional ways such as notes on palms or attached notes to computer monitors, and, in addition, the potential parental support in the form of providing ready-made answers to the exam questions.

Some of the previous review, it should be stated, proposes some gains of online assessment, but not specifically the home-delivered mode, such as the economic cost-saving dimension, the possibility of being delivered at a fitting time for both the teacher and the exam-taker, encourages autonomous learning, can improve the practice of teaching, promotes distance interaction between teachers and students through the process of exchanging distance feedback, especially formative assessment which can enhance students' level of engagement, and, as a result, creating a learning community; in addition, Betlej (2013), Spivey & McMillan (2014) classified some benefits of using online assessments such as: reduction of paper usage, decreased concerns over the security of transporting test papers, flexible time and venue, continuous feedback and random selection and reproducibility of exam questions. The bulk of the previous review also categorized *some disadvantages and technical problems that may negatively affect the reliability, validity, fairness and authenticity, of such an assessment and evaluation processes, like the lack of the supporting technical infrastructure represented by internet servers, data storage, computer-aided learning rooms, poor network connectivity, hardware, software, power supply , in addition to the prominent problem of the rarity of online and physical security systems to safeguard assessment modes from the potential cheating strategies and techniques that can be enhanced by students and exam-takers; by the same token, the fairness of the online assessment is under deep questioning due to the fact that, in most cases, it- the online assessment- is home delivered to students in different areas of various Wi-Fi connectivity strength, and most importantly, accordingly, the doubtful process of anchoring the formative and the summative assessment formats to various cognitive domains that include the affective domain, the psychomotor domain, and, of course, higher levels of the cognitive hierarchy. The previous review acknowledged that lack of knowledge and skills of how to switch into online assessment during the pandemic of Covid-19, the attitudes of both teachers and students, the social and psychological demands, especially from the part of the teachers, the cost and bills of Wi-Fi connection, and a fitting electricity supply during the assessment session, all, stand for real challenges towards carrying out online home-delivered assessment fairly and reliably.* The previous review, indicated that although a considerable number of university educators go with the belief that a reliable assessment could not be made in the online home-delivered education environment, they have to abide by changing academic regulations that were dictated by most universities in order to ensure the continuity of teaching and learning, especially during the early stage of the pandemic of Covid-19, and as a result, to consider other alternative assessment options such as assignments, writing reports, and open-book examination, and, then, to accept considerable modification of grading systems on the proposed assumption that learners may not be able to get the same learning experiences and chances through online learning during this pandemic. Acknowledging the differences between sciences and arts-type subjects which indicate distinctive assessment practices, the previous review highlighted the need for online proctoring software and online anti-cheating ware as well as plagiarism checking platforms. Although most educational institutions all over the world were taken by surprise during the early wave of Covid-19, the previous review confirmed that institutional readiness and the educators' level of readiness of the online assessment, the availability of IT cadre's support to carry out some kind of authentic assessment and to safeguard the transaction of feedback, and a plan (B) in the form of training for such an unconventional environment of teaching, learning, and assessing, should have been considered long before switching to the online means.

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c) *Counter Cheating procedures in the online home-delivered assessment and evaluation during the pandemic situation of the Covid-19.*

Valenti, Neri, & Cucchiarelli (2003, Cited in Tuah & Naing, 2021) conclude that "essays are the most effective tool to evaluate learning outcomes that indicate learner aptitude to recall, organize and integrate viewpoints in the form of written work. The essay questions can assess learning outcomes that relate to the evaluation and synthesis levels of Bloom's (1956) taxonomy. Therefore, automated assessment for essays arguably offers a reliable scoring method that can be costly and time savings. The methods of automated assessment of free-text answers include Project Essay Grade (PEG), Intelligent Essay Assessor (IEA), Educational Testing service I, Electronic Essay Rater (E-Rater), C-Rater, BETSY, Intelligent Essay Marking System, SEAR, Paperless School free text Marking Engine and Automark. The main problems encountered in automated essay grading are lacking standard to calibrate human marks and ambiguous set of rules for selecting master texts." *Walker (2007,* cited in Rahim, 2020) recommend that "Whenever relevant and feasible, using more than one format for a particular domain is recommended to measure widely and deeply." *Bruff, Fisher, McEwen & Smith (2013,* cited in Khatoony & Nezhadmehr, 2020) have found that "The integration of both face-to-face interaction (offline) and online materials have shown great implications to learners as they found it to be useful." *Boitshwarelo B, Reedy AK, Billany (2017,* cited in Rahim, 2020) conclude that "strategies to overcome this threat [cheating practices] begin by encouraging honesty among students." *BOZKURT & Hasan (2018,* Cited in Doyumğaç, Tanhan & Kiymaz , 2020) conclude that "biometric and information-based identity verification methods would be more reliable in online assessment and evaluation exams." *Bozkurt, A., & Sharma, R. C. (2020,* cited in Adedoyin & Soykan, 2020) state that "There exist needs for researchers in educational technology to direct research advancement toward the development of alternative assessment approaches that will be devoid of cheating and plagiarism with adequate attention on the recommendations of Feldman (n.d.) for unbiased and equitable assessment systems for future reoccurrence of such pandemic, since education system is vulnerable to external problems of this kind." *Chirumamilla, Sindre & Nguyen-Duc (2020,* cited In Tuah & Naing, 2021) classify some "various countermeasures for those cheating practices were using biometry, mingling, shuffling, random drawing, sequencing, broadcasting methods." *Doyumğaç, Tanhan & Kiymaz (2020)* confirm that "various measures should be taken to improve the validity and reliability of measurement and evaluation in e-exams or distance/online exams based on the principle of equal opportunity. Further studies and applications could be developed to ensure objectivity and justice in online exams." *Farrah & al-Bakry (2020)* suggest "Using oral and analytical exams to make the assessment more reliable." *Kaup, Jain, Shivalli, Pandey & Kaup (2020) conclude that* "Conducting a secure and valid online assessment is difficult. This can be made possible without violating privacy by enabling software such as Proctorio, a Google Chrome extension that monitors students taking exams online. Regular formative assessment on smaller topics with reflections can help in this regard." *Putri, Purwanto, Pramono, Asbari, Wijayanti & Hyun (2020)* state that "Another aspect of assessment, the summative assessment, has also become a big concern for teachers. With the enforcement of Indonesian government policy on restriction of social gathering, gathering students for a summative assessment is not an option. Consequently, teachers have to rack their brains to come up with an alternative for authentic assessment." *Rahim (2020)* has concluded that "As with all assessments, quality-control procedures including blueprinting are required to ensure adequate coverage and sampling of all learning outcomes." *Muhammad & Ockey (2021)* conclude that "the complexity and unfamiliarity with the different technologies involved in online at-home testing can affect students' test taking experience, as such, sending how-to videos designed for test takers with limited language proficiency before taking the assessment can be valuable." *Tuah & Naing (2021) conclude that* "The two key strategies recommended to manage online examination are 1) set up online questions using free software, and 2) use a free video-conferencing tool as closed-circuit television (CCTV) through the candidates' mobile phones for invigilation purposes." Tuah & Naing (2021) recommend "affordable and straightforward ways to minimize possible cheating attempts among candidates in low resource settings. The strategies are to check the identity of the candidate, check examination room and setting, record both audio and video throughout the examination, and closely observe on candidate's computer screen or monitor." Tuah & Naing (2021) also add that "The critical strategies recommended managing online examination involve setting up online questions using freely available software and utilizing free video conferencing tool as CCTV on mobile phones for invigilation purposes. Educators must consider readiness among students and teachers, cheating practices and student diversity when employing online assessment at HEIs. They can benefit from training for online learning and the assessment methods to prepare them better when facing global uncertainties such as COVID-19 pandemic. Furthermore, educators must evaluate the methods and their impact on students' learning outcomes."

To sum up, the previous review stressed the fact that conducting a secure and valid online

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assessment, during the pandemic, has been difficult because of the cheating practices, which have been utilized by a considerable number of students, learners, and exam-takers, and which has represented a major challenge that can steeply damage the reliability, validity, and fairness of the online assessment and evaluation processes, especially the home-delivered ones ; accordingly, the previous review classified some online procedures and applications that can be proposed to minimize the exam takers' potential cheating procedures, and then boost the reliability, validity, and fairness of the assessment process:

- Checking the identity of the candidate using biometric and information-based identity verification methods.
- Mingling, shuffling, random drawing, sequencing, broadcasting methods.
- Using oral and analytical exams to make the assessment more reliable.
- Checking the examination room and setting, and closely observing the candidate's computer screen or monitor.
- Recording both audio and video throughout the examination.
- Setting up online questions using freely available software and utilizing free video conferencing tool as CCTV on mobile phones for invigilation purposes.
- Setting up online questions using free software, and using a free video-conferencing tool as closed-circuit television (CCTV) through the candidates' mobile phones for invigilation purposes.
- Integrating both face-to-face interaction (offline) and online materials.
- Enhancing alternative, but authentic assessment approaches and procedures that can devoid cheating and plagiarism.
- Using more than one format of assessment for a particular domain.
- Changing the exam format through enhancing a wide range of essay questions which can assess learning outcomes that relate to the evaluation and synthesis levels of Bloom's taxonomy, while keeping in mind that the main problem encountered in automated essay grading has been the absence of standards and maxims that can calibrate human marking.

The application of the abovementioned procedures and applications should consider the maxim of exam-takers' privacy through enhancing privacy-preserving software and apps, and, furthermore, educators must evaluate the impact of such procedures and applications on students' learning outcomes, and consider various measures that should be taken to improve the validity and reliability of measurement and evaluation, in e-exams or distance-online exams in a way that goes with the principle of equal opportunity; by the same token, the students' diversity and readiness, students-bound technical and material demands, and the teachers' attitudes and readiness towards online home–delivered assessment should be taken into consideration when employing online assessment, especially at HEIs. The previous review assured that the summative assessment should have received extra attention and consideration as it could have been orchestrated and oriented to be as valid and reliable as possible.

Although the previous review acknowledged the fact that ensuring the objectivity and justice in online exams is hard to be achieved, but, at the same time, this should not overlook the fact that a better outcome would have been if all, who were involved in the online home-delivered assessment and evaluation, had received a correlative mock training simulating that of the pandemic situation of Covid-19, As a result, the previous review deduced that as long as the education system may always be vulnerable to external problems like that of Coid-19 pandemic situation, it should be rehabilitated, adjusted, and evaluated to yield a valid, reliable, and authentic alternative assessment. The previous review also foregrounded the idea that encouraging honesty among students is the most effective strategy towards reducing, or, may be, eliminating, the threat of the prevailing cheating strategies which, as the case has been, stands for a negative collateral effect of the online home-delivered assessment and evaluation processes during the pandemic of Covid-19.

V. Discussion

Online assessment and evaluation processes, during the has been pandemic situation of the Covid-19, have echoed two antithetical voices: one, quite generally, tones some kind of advocacy towards online assessment and evaluation processes, and the other wafts a skeptical, conservative, and doubtful stand. The advocacy towards online assessment formats, should be stated, is anchored to some proposed set of procedural and materialistic gains such as: the easiness and flexibility of execution with the minimum need of human load, the nearly zero paper consumption, the notable speed of execution and collecting students' responses, the precious chance of reducing the cost, and the proposed objectivity and accuracy of the grading procedure; while the doubtful and pessimistic stand is anchored to a solid argument that the validity, reliability, and fairness, of the online home-delivered assessment forms, are all under deep questioning and doubt because of the cheating practices which have mostly been exploited by a considerable number of students, learners , and exam-takers all over the world; those who take such a negative stand, also propose

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that exam-takers or some teachers have not been able to get equal chances to online connectivity, may not have been able to cover the expenses related to internet connectivity, and may not have acquired the needed technical skills to switch into such a mode of online home-delivered education; those, who take such a doubtful stand towards the online home-delivered assessment, further argue that no one of whom involved, in the assessment processes during the has been Pandemic of Covid-19, has been able confirm that cheating practices have not widely been taking place, and in some cases, sorrowfully, under the watchful eyes of the parents or family members. As a result, it can be stated that online assessment, especially the home-delivered form, may not guarantee any kind of control over students or learners' high potential attempts to exploit cheating practices, which have been significantly, as confirmed by the available related literature, more prevalent in online home-delivered educational environments, and which stand for a real threat to the validity, reliability, and the fairness of both the formative and summative forms of assessment and evaluation. It can also be stated that although a number of university educators, as presumed by some of the available related literature, and as far as the researcher has opined, have been to a great extent aware of the fact that reliable forms of assessment and examination cannot be achieved in the online home-delivered educational environment, they have had no escape but to abide by a sudden modification of the related academic regulations, which have been brokered by most universities, in order to ensure the continuity of teaching and learning processes, especially during the early stage of the pandemic, and as a result, to consider other alternative assessment options such as assignments, writing reports, and open-book examination, and, then, to accept considerable modification of grading systems because of the assumption that learners may not have been able to get the same learning experiences and chances through online learning during this pandemic. During the pandemic situation, the cheating practices, which have been practiced by a considerable number of exam-takers all over the world, as acknowledged by the available related literature, and as far as the researcher has believed in, represent a core problem that may greatly destroy the validity, reliability, and above all, the fairness of the assessment and evaluation processes; accordingly, some research prescribed some therapeutic cheating –proof measures that should have been exploited to boost the validity, reliability, and fairness of the online home-delivered assessment processes, and proposed some counter-procedures that could have functioned as a corresponding alternative to physical proctoring during the has been pandemic situation of Covid-19; the application of these cheating-proof measures and those alternative proctoring- procedures, it should be added, as confirmed by the a bulk of the available related literature, must not violate the principle of preserving students and exam-takers' privacy, and that they must be applied in parallel with encouraging self- motivated honesty, among students and exam-takers, as it can be the most effective cheating -counter strategy. The status of the online English Language Teaching (ELT), in a foreign setting, has been proposed to be problematic due to various causes and considerations such as: the varying availability of the internet and the speed of connectivity with the internet that are open to both teachers and students at a given point of time, the varying availability and strength of a Wi-Fi signal, students' readiness and attitudes, teachers' readiness and attitudes, and the varying availability of effective and compatible applications that especially serve the (ELT); accordingly, the online home-delivered assessment and evaluation of the skills and sub-skills of English language in a foreign setting has been so worrying due to the fact that the reliability of learners' responses and answers have been under deep questioning, and that the establishment of valid and reliable formats of assessment in (ELT), similar to those of pre-pandemic situation, has been so hard to be guaranteed because of the has been prevailing cheating practices exploited by a considerable number, once again, of English language learners, students, and exam-takers all over the world. As far as this study is concerned, and depending on the researcher's experience in the field and his mere observation, the experience of Palestine Technical University –Kadoorie (PTUK) in the online home-delivered assessment and evaluation of English Language introductory Courses, i.e. English (1) no. (15200106), English (2), no. (15200112), and Remedial English, no. (15200099), has not been different from the experience of other universities and higher education institutions all over the world, in that, it can be stated, cheating practices, which have also been practiced by a considerable number of students, resulted in unusual higher percentages in marks and averages in English courses, though English is correspondingly taught as a foreign language in a Palestinian setting; moreover, during the has been Covid-19 situation, the online home-delivered assessment and evaluation processes, in PTUK, were mainly delivered and furnished via (PTUK LMS-Moodle) which was steered by the staff of the e-learning and computer centers, but, it should be stated that (LMS-Moodle), originally, and as proposed by previous literature, constitutes a learning environment and does not much correspond with some forms of assessment, especially the summative form, and that the overdependence of PTUK (LMS-Moodle) on multiple-choice questions, which measure lower cognitive domains, has additionally jeopardized the validity, reliability, and fairness of the assessment and evaluation

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processes. The researcher also believes that the great effort, which has been exerted by the e-learning center in such a demanding situation of Covid-19, was mainly propelled by two conditions: the first is the central demand of preserving the continuity of the educational process regardless any margins of educational loss or outage, and the second, the researcher also believes, is the may be digital and purely technical mentality with its binary and mathematic scope that has overlooked some essential qualitative educational maxims of the assessment process; in this regard, the researcher also believes that enough attention has not been paid to such educational specifications and to the safeguarding elements of the online home-delivered assessment and evaluation processes; in addition, and as far as the researcher has known, no online anti-cheating procedures were taken or enhanced. It should be added that the assessment and evaluation processes, which are integral parts of the whole educational process, should also be oriented towards elevating a set of human values and morals such as fairness, justice, equal opportunities, and, then, as a result sprouting the seeds of honesty and integrity through granting whomever eligible whatever she\he deserves in an educational equilibrium, and, in addition, should be enhanced to what Rahim (2020) has stated "online assessments must be designed to stimulate positive learning behaviors in students." This supreme educational and moral goal of the assessment and evaluation processes has been perverted and deviated by a virus, which is as dangerous to human values as Covid-19 to human health, in the form of cheating practices, from the part of a considerable number of students, learners, and exam- takers all over the world during the online home-delivered assessment and evaluation processes; moreover, and as a result of this deviant learning behavior, represented by the cheating practices, a steep doubtful consideration of the educational and learning outcomes has come into existence as, in one sense, the grades, levels, and judgments have not been trusted to mirror the real status of students' learning and their educational continuum, and in another sense a relatively measurable learning outage and educational loss has strongly been anticipated; as far as the objective of this study is concerned, another moral outage has been collaterally emerged as a result of the cheating practices and the deviant role that assessment has been oriented to play during the has been Covid-19 circumstances: this moral outrage and loss have, as far as the researcher knows, received very little attention from educationalists, education-planers, and educational psychologists. This reality has propelled and directed the objectives and the investigative scope of this study.

VI. Findings and Conclusions

In line with its objectives, findings of this study confirm that during the has been situation of Covid-19 cheating practices, which have been employed by a considerable number of students all over the world, in the online home –delivered assessment modes, stand for a devastating element to the learning process because they -cheating practices - violate various educational maxims to which the assessment and evaluation processes were anchored such as validity, reliability, fairness, and equal opportunity; findings of this study confirm that resorting to cheating practices, form the part of students, learners, and exam-takers, violates and disrupts the educational principle of calibrating the amount of learning a learner has reached over a period of time within the educational continuum; findings of this study indicate that educators, and as a result of the cheating practices, in the online home-delivered assessment, were led to measure and assess nearly fake responses, and, then, grant unreliable grades, unreal measurement, and a misleading evaluation process. Accordingly, this study concludes that the existent potentiality of cheating practices during the has been pandemic situation of Covid-19, entails four presuppositions: the *first* one is that the online home-delivered assessment and evaluation processes have failed, to a great extent, to safeguard what they are both supposed to guard: maxims of reliability, validity, and fairness; the *second* is that the online assessment and evaluation processes, especially the home-delivered ones, also have failed to justly achieve the maxim of equal opportunity, and, then, to precisely calibrate the varying and demanding levels of excellence among students and exam-takers; the *third,* it should be added, that cheating practices, which have been exploited by a considerable number of students during the pandemic situation of the Covid-19, also have violated the barometric dimension of the assessment and evaluation processes as the educational judgment was not as real as it should have been; as a result, this study concludes that the role of assessment process has been perverted and deviated as instead of being a tool for building, developing, and elevating the educational and moral aspects of the teaching and learning processes, it has facilitated the proliferation of the culture of cheating as the darkest side -effect of the online home-delivered assessment and evaluation processes, during the has been pandemic situation of Covid-19; the *fourth* is that online assessment and evaluation processes, especially the home-delivered ones, have resulted in some kind of both learning and moral outages, but as far as the proposal of this study is concerned, the moral outage can be more critical and devastating than the learning outage due to the fact that repairing learning outages is easier than fixing the ethical and moral outages that are caused by a deviant

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immoral learning behavior exhibited by cheating practices; moreover, learning as a human attribute, the researcher believes, is worthless if not been oriented towards elevating human and educational values, ethics, morals such as honesty, righteousness, and truthfulness. This study, in accordance with its objective, concludes that the tendency to resort to cheating practices, especially in the absence of physical proctoring, amounts to an immoral deviated learning behavior because it, simply, facilitates getting something, while at the expense of others, the cheater never has; this study also concludes that the online home-delivered assessment of some of the English introductory courses in (PTUK), during the has been pandemic situation of Covid-19, has relatively been worrying and doubtful because of the unusual high marks and averages in English courses though, in a Palestinian setting, English language is taught and learnt as a foreign language which has long been supposed to be demanding and not an easy task. This study, in addition, concludes that various cheating-proof techniques should have been used and facilitated to boost the reliability, validity, and the confidence in the assessment process.

VII. Recommendations

In reference to its findings and conclusions, and as far as the Covid-19 situation is concerned, this study recommends further referential diagnostic studies to cast more understanding in regard to the magnitude of that moral outage caused by the cheating practices which were enhanced by a considerable numbers of students, learners, and exam- takers, in the online home-delivered mode of assessment; this study recommends more research to identify the psychological basis of the students and exam-takers' deviant learning behavior represented by cheating practices, especially in the absence of any kind of physical proctoring; this study recommends empirical studies investigating the role of parents and family members during the pandemic situation of Covid-19 as, in some sizable cases, cheating practices, in the online home- delivered testing, during the pandemic situation of Covid-19, took place under the auspices of either parents or other family members. This study recommends that Palestine Technical University-Kadoorie (PTUK) should review all procedures, regulations, and the outcomes of the home-delivered assessment and evaluation procedures during the pandemic circumstances of the Covid-19, to find a proximal ground of development in-between the strong and weak points of the experience of (PTUK) in assessing English Language introductory courses; this study recommends empirical studies to investigate the factors orienting students' academic honesty and ethics; this study recommends deeper research investigating how far the online home-delivered modes of assessment and evaluation have affected the English language teaching and learning, especially in a foreign setting; this study also recommends further correlative studies to investigate the importance of academic honesty to the learning and teaching of the English language; this study recommends more research investigating the different learning behaviors adopted by English Language learners in Palestine and in other places all over the world during the Pandemic situation of the Covid-19; this study also recommends further studies to investigate cheating- proof technologies, software, and the related state-of-the-art web applications, especially those that are very appropriate for English language teaching, learning, and assessing.

Conflict of Interest Statement

The author declares no conflicts of interest.

References Références Referencias

1. Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. Interactive Learning Environments, 1-13.
2. Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period: A case study in Indonesia. Journal of Ethnic and Cultural Studies, 7(2), 90-109.
3. Alshehri, Y. A., Mordhah, N., Alsibiani, S., Alsobhi, S., & Alnazzawi, N. (2020). How the regular teaching converted to fully online teaching in saudi arabia during the coronavirus covid-19. Creative Education, 11(7), 985-996.
4. Astuti, M., & Solikhah, I. (2021). Teacher Perception in Teaching English for SMP in Klaten Regency During Covid-19 Outbreak. IJOTL-TL: Indonesian Journal of Language Teaching and Linguistics, 6(1), 1-13.
5. Atmojo, A. E. P., & Nugroho, A. (2020). EFL classes must go online! Teaching activities and challenges during COVID-19 pandemic in Indonesia. Register Journal, 13(1), 49-76.
6. Boitshwarelo, B., Reedy, A. K., & Billany, T. (2017). Envisioning the use of online tests in assessing twenty-first century learning: a literature review. Research and Practice in Technology Enhanced Learning, 12(1), 1-16.
7. Betlej, P. (2013). E-Examinations from Student's Perspective-the Future of Knowledge Evaluation. Studia Ekonomiczne, 153, 9-22.
8. Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. Asian Journal of Distance Education, 15(1), i-vi.

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9. BOZKURT, A., & Hasan, U. Ç. A. R. (2018). E-Öğrenme ve e-sınavlar: Çevrimiçi ölçme değerlendirme süreçlerinde kimlik doğrulama yöntemlerine ilişkin öğrenen görüşlerinin incelenmesi. Mersin Üniversitesi Eğitim Fakültesi Dergisi, 14(2), 745-755.
10. Baran, E. (2011). The transformation of online teaching practice: Tracing successful online teaching in higher education.
11. Bruff, D. O., Fisher, D. H., McEwen, K. E., & Smith, B. E. (2013). Wrapping a MOOC: Student perceptions of an experiment in blended learning. Journal of Online Learning and Teaching, 9(2), 187.
12. Chirumamilla, A., Sindre, G., & Nguyen-Duc, A. (2020). Cheating in e-exams and paper exams: the perceptions of engineering students and teachers in Norway. Assessment & Evaluation in Higher Education, 45(7), 940-957.
13. Downing, S. M., & Haladyna, T. M. (2004). Validity threats: overcoming interference with proposed interpretations of assessment data. Medical education, 38(3), 327-333.
14. Doyumğaç, İ., Tanhan, A., & Kiymaz, M. S. (2020). Understanding the most important facilitators and barriers for online education during COVID-19 through online photovoice methodology. International Journal of Higher Education, 10(1), 2021.
15. Destianingsih, A., & Satria, A. (2020). Investigating Students' Needs for Effective English Online Learning During Covid-19 for Polbeng Students. ELT-Lectura, 7(2), 147-153.
16. Flaherty, C. (2020, April 23). Grading for a Pandemic. Inside Higher Ed. https://www.insidehighered.com/news/2020/04/23/how-lenient-or-not-should-professors-be-students-right-now
17. Farrah, M., & al-Bakry, G. H. (2020). Online learning for EFL students in Palestinian universities during corona pandemic: Advantages, challenges and solutions. Indonesian Journal of Learning and Instruction, 3(2).
18. Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. Computers & education, 57(4), 2333-2351.
19. Jabsheh, A. (2020). The Usability Outlook of Computer-Based Exams as A means of Assessment and Examination: A case study of Palestine Technical University. International Journal of Linguistics, Literature and Translation, 3(3), 154-168.
20. Jiao, H., & Lissitz, R. W. (2020). What Hath the Coronavirus Brought to Assessment? Unprecedented Challenges in Educational Assessment in 2020 and Years to Come. Educational Measurement: Issues and Practice, 39(3), 45-48.
21. Kaup, S., Jain, R., Shivalli, S., Pandey, S., & Kaup, S. (2020). Sustaining academics during COVID-19 pandemic: the role of online teaching-learning. Indian Journal of Ophthalmology, 68(6), 1220.
22. Korkmaz, G., & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. International Journal of Technology in Education and Science (IJTES), 4(4), 293-309.
23. Khatoony, S., & Nezhadmehr, M. (2020). EFL teachers' challenges in integration of technology for online classrooms during Coronavirus (COVID-19) pandemic in Iran. AJELP: Asian Journal of English Language and Pedagogy, 8(2), 89-104.
24. Lally M. The 18 Best Free Survey Tools for Customer Feedback Drive (2020 Edition) [internet]. BLUELADZ. 2019 [cited 2020 Jun 1]. Available from: https://www.bluleadz.com/blog/10-of-the-greatest-free-survey-tools-you-should-try.
25. Lin, C. H., & Warschauer, M. (2015). Online foreign language education: What are the proficiency outcomes?. The Modern Language Journal, 99(2), 394-397.
26. Lie, A., Tamah, S. M., Gozali, I., Triwidayati, K. R., Utami, T. S. D., & Jemadi, F. (2020). Secondary school language teachers' online learning engagement during the COVID-19 pandemic in Indonesia. Journal of Information Technology Education: Research, 19, 803-832.
27. Lin, C. H., & Warschauer, M. (2015). Online foreign language education: What are the proficiency outcomes?. The Modern Language Journal, 99(2), 394-397.
28. Muhammad, A. A., & Ockey, G. J. (2021). Upholding Language Assessment Quality during the COVID-19 Pandemic: Some Final Thoughts and Questions. Language Assessment Quarterly, 18(1), 51-55.
29. Motala, S., & Menon, K. (2020). In search of the 'new normal': Reflections on teaching and learning during Covid-19 in a South African university. Southern African Review of Education, 26(1), 80-99.
30. Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L. M., & Hyun, C. C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. International Journal of Advanced Science and Technology, 29(5), 4809-4818.
31. Purwanto, A., Asbari, M., Fahlevi, M., Mufid, A., Agistiawati, E., Cahyono, Y., & Suryani, P. (2020). Impact of Work From Home (WFH) on Indonesian Teachers Performance During the Covid-19 Pandemic: An Exploratory Study. International Journal of Advanced Science and Technology, 29(5), 6235-6244.
32. Reed, S., Shell, R., Kassis, K., Tartaglia, K., Wallihan, R., Smith, K., ... & Mahan, J. D. (2014).

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Applying adult learning practices in medical education. Current Problems in Pediatric and Adolescent Health Care, 44(6), 170-181.

33. Rahim, A. F. A. (2020). Guidelines for online assessment in emergency remote teaching during the COVID-19 pandemic. Education in Medicine Journal, 12(3).
34. Richardson, J. T. (2015). Coursework versus examinations in end-of-module assessment: a literature review. Assessment & Evaluation in Higher Education, 40(3), 439-455.
35. Robles, M., & Braathen, S. (2002). Online assessment techniques. Delta Pi Epsilon Journal, 44(1), 39-49.
36. Rowe, N. C. (2004). Cheating in online student assessment: Beyond plagiarism. Online Journal of Distance Learning Administration, 7(2).
37. Spivey, M. F., & McMillan, J. J. (2014). Classroom versus online assessment. Journal of Education for Business, 89(8), 450-456.
38. Salhab, R., Hashaikeh, S., Najjar, E., Wahbeh, D., & Affouneh, S. (2021). A Proposed Ethics Code for Online Learning During Crisis. International Journal of Emerging Technologies in Learning, 16(20).
39. The realities of cheating in online classes & exams [Internet]. Online Education. 2020 [cited 26 Apr 2020]. Available from: https://www.onlineeducation.com/features/ cheating-in-online-education
40. Tuah, N. A. A., & Naing, L. (2021). Is online assessment in higher education institutions during COVID-19 pandemic reliable?. Siriraj Medical Journal, 73(1), 61-68.
41. Thiele, J. E. (2003). Learning patterns of online students. Journal of Nursing Education, 42(8), 364-367.
42. Vd Westhuizen, D. (2016). Guidelines for Online Assessment for Educators.
43. Valenti, S., Neri, F., & Cucchiarelli, A. (2003). An overview of current research on automated essay grading. Journal of Information Technology Education: Research, 2(1), 319-330.
44. Vala, N. H., Vachhani, M. V., & Sorani, A. M. (2020). Study of evaluation of e-learning classes among medical students during COVID-19 pandemic phase in Jamnagar city. Natl J Physiol Pharm Pharmacol, 10, 1.
45. Westhuizen D. Guidelines for online assessment for educators. British Columbia, Canada: Common wealth of Learning; 2016. p.1-56.
46. Walker, D. J. (2007, May). Principles of good online assessment design. In International Online Conference on Assessment Design for Learner Responsibility. Re-Engineering Assessment Practices in Scottish Higher Education (REAP).
47. Walsh, K. (2015). Point of view: online assessment in medical education–current trends and future directions. Malawi Medical Journal, 27(2), 71-72.
48. Wang, V. C., & Torrisi-Steele, G. (2015). Online teaching, change, and critical theory. New Horizons in Adult Education and Human Resource Development, 27(3), 18-26.
49. Yamamoto, J., & Ananou, S. (2015). Humanity in the Digital Age: Cognitive, Social, Emotional, and Ethical Implications. Contemporary Educational Technology, 6(1), 1-18.
50. Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 outbreak.

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Deconstruction Versus Liberation: New Historical Accounts in Spaces of Mexico, Costa Rica, Uruguay and Argentina

By Ana Hernández Espino
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Abstract- On the occasion of two research in Popular Education in different fields and from two university institutions such as the Autonomous University of Madrid and the National University of Entre Ríos, deconstructive processes of liberation in Latin American spaces are known. At the same time, the link to a research group in Health, Inclusions, Equity and Pedagogy, allows a complementarity towards meanings and socio-historical stories. In a timeline between 2003 and 2014, formative experiences with liberating projections are identified. These experiences take stories from spaces in countries such as Mexico, Costa Rica, Uruguay and Argentina. The main objectives are focused on the identification of the pedagogical processes from the documentary testimonies of the experiences. The analyzes have dimensions of gender perspective, technological appropriation and ways of doing things. The dominant official story is dismantled from its denaturalization, new stories arise, typical of the context-pedagogical process relationship and historical analysis.

Keywords: *historical analysis, deconstruction, popular education.*

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I. Introduction

"In the movement of history there is a permanent relationship between the old and the new. The old enters into the new according to the meaning that the new gives it. History is not, therefore, the result of a deterministic process." (Rebellato, J. L., 2008, p. 180). Deconstruction emerges as a process of decolonization linked to the current of liberation, exits to socio-educational problems to rethink their imaginaries. From this point of view, the perspective of Popular Education accumulates knowledge that allows rethinking decolonized pedagogical processes, betting on returning the humanization (Freire, 1970) taken away. This paper presents a theoretical scenario of the scope of the research carried out in countries such as Mexico, Costa Rica, Uruguay and Argentina. In a first stage, these spaces were selected considering two aspects: (1) the Popular Education nomination in their formative experiences, (2) the account of their practices where there was a correspondence with the Popular Education perspective and (3) concretized between the years 2003 and 2013. In later stages, the training experiences are circumscribed to those that stage the plurality of educational modalities, with the aim of expanding the information on the diversity of the pedagogical proposals in Popular Education. The selection based on the nomination is based on the fact that the self-nomination offers information about the story that they are interested in giving and its coherence in the practices, it brings information about concretizations in Popular Education. A coherence based on the significance of the ethics of liberation of José Luis Rebellato (2000), Uruguayan, Doctor of Philosophy, founder of the Master's and Diploma of Popular Education in Uruguay. The significance of Popular Education in this work is referenced in the contributions of authors such as Paulo Freire (1970), Carlos Nuñez et al. (1993), Berta Salinas (2000), Alfonso Torres (2011) and Carlos Vigil (2000). In the data collection stage, an attempt is made to understand the pedagogical processes from three aspects: the meaning of the subject, the views of the participants, and community interaction. In the data analysis stage, analysis dimensions linked to current social problems of interest are applied: the gender perspective, the technological perspective and the ways of doing things. The first linked to a social scourge such as gender violence that has its point of greatest conflict in femicide.

It´s diverse expressions damage the rights of human beings on a daily basis and the policies promoted are insufficient. In a current context of speed, given by the technological and mass media, they represent scenarios to be deconstructed to avoid Trump and Bolsonaro phenomena. The historical accumulation of Popular Education recognizes and ponders ways of liberating.

The evaluation methodology of the sources focuses on validating the story of the participants in the various pedagogical processes and their expressions, dignifying them as documentary testimonies (both primary sources). Each of the testimonies is considered in its historical time, avoiding interviews with the participants. The remembrance occurs in a present that in this research is not of interest its current significance but rather the one produced in that historical moment, in that context.

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Two researchs are promoted, one in the regional framework of Mexico, Costa Rica, Uruguay and Argentina referring to the identification of the pedagogical processes of Popular Education and with the characteristics of collection and analysis raised above. Another, in the Uruguayan sphere, focused on state articulation and social organizations, with the object of studying socio-educational processes of national scope. In the state representation, the University of Labor of Uruguay (UTU) is taken, for being the school institution with the greatest plurality of training proposals in Uruguay. At the same time, there was participation in institutional roles as a teacher, coordinator and labor literacy teacher and in roles acquired as an educator-educating from another way of seeing, concretized in socio-educational projects. This participation and previous observation offer knowledge about the selected school institution.

In the second research, there is a similar evaluation of the sources, rescuing documentary testimonies prepared by the participants with dissemination on the networks. Collection and analysis have similar categories. The internships are those linked to UTU in programs for young people and adults with difficulties in accessing official education. The articulation promotes processes of development of pedagogies appropriate to the target population. The creation of a training proposal for participating educators and teachers is outlined, including in some cases for administrative, service and technical officials. Considering that all of them can be referents in the zone of proximal development (Vygotsky, L. S., 1978) and are participants in the learning system (Vitón, M.J., 2012).

The research methodologies focus on identifying processes of deconstruction, decolonization and denaturalization of collective imaginaries, focusing on the characterization of liberating ways of doing things. The dominant historical stories based on the collective imaginary of each of the spaces are presented in the institutional structures as well as in the conceptualizations used. Each of the selected practices has projected the deconstruction of the official story to build its own story. In the success or failure, a common action is identified in the decolonized story.

These ways of doing are recognized as a contribution of Popular Education (Salinas, B., 2000), based on the updating of the context, the participants and the movement (Villasante, T., 2002) of pedagogical practices. Pedagogical in the sense of educator, liberator with diverse didactics, where students play roles with active participation linked to the meaning of subjects and not subject. Authoritarianism is not considered pedagogical. The stories of the ways of doing pedagogical practices have different constructions, looking at a moment from different eyes, you can see a scenario.

II. Approximations

The field of possibilities emerges as one of the characteristics of these scenarios, by creating conditions for the denaturalization of socio-historical mandates. A process of pedagogical mediation (Gutiérrez, 2005) linked to the formulation of a new meaning of Educator, rooted in the collective process. The depersonalization of the Educator figure arises as a profile in responsibility of a person. The educator or teacher triad, socio-educational, affective-methodological content and analysis of the socio-historical context, forged educational projects with diverse stories. The figure of the educator appears as part of the pedagogical mediation, blurred from his person, merging into the community project. In the production of these community tasks, a framework as fields of possibilities, are resignified. The denaturalization of socio-historical stories appears as a constant in the new stories.

Stories with socio-historical roots in Latin America unleash moldings of the ways of seeing the world and with it, direct some actions. Others, based on deconstruction or denaturation, decode the dominant story, formulating pedagogical actions. Knowing these actions, both in their similarities and in their differences, there is a common history structuring the dominant narrative and others under construction.

In two focuses: Mexico and Costa Rica in one and Uruguay and Argentina in another, they provoke memories of common stories of collaboration, identity and roots. The pedagogical practices view these socio-historical contexts, cultivating in the first focus, interculturality. The diversity of cultures in Mexico and Costa Rica offer stories based on access to education for native populations, as a necessity. Uruguay and Argentina with dictatorships shared in time and space, of extreme coordination (Plan Condor) contain in the stories, the need to recompose society. They prepare pedagogical proposals for the social referents of training in Popular Education and citizen attention and socio-educational support for populations with violated rights. Citizen precariousness appears in both focuses, the formative experiences try to deconstruct the official history. A story that does not stop being present but that constantly fights against being forgotten. even in the glances of the memorists. The dominant narrative constantly invades historical significance.

In each of the focuses, although there are various diagnoses of the contexts, a regionality appears with common processes, typical of shared history. A Central America invaded with high interference from the US, suffers the dismantling of the control of the state apparatus. In the Río de la Plata, the siege was carried out by international banks with atrocious capacities to mortgage generations. The reactive strategies gave rise to two opposing processes -in both foci- on the one

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hand, precariousness by dismantling the State and on the other, liberating the communities from oppressive conditions.

Regarding the reports of the pedagogical processes, they focus on meanings according to the educational perspective and modality: training of popular educators, socio-educational support and collaborative help with a gender perspective. The modality is similar in the two foci, they use similar strategies. In the significance of the gender perspective, specific proposals with a transformative perspective appear. In the other pedagogical processes, gender does not appear as a category to work with, an omission that may occur due to the recent creation of the gender category as decolonized, by Scott in 1996.

In the reports of their participants about the strengths of the practices, they identify a new way of learning, concretized in the breadth of the training. A learning different from the one they knew, one linked to each person, where the affective component plays at all times and work is done. The knowledge appears strengthened by the sense of belonging that it generates, the favoring of self-esteem and collaboration in solving their problems.

As far as community interaction is concerned, the great majority appear to be supported by work networks. Enhancing the scope of their practices by publicizing what they do, reflecting collectively and learning from other practices. At the same time, they feel identified with a common movement, with a high commitment and from a singular ethic. Some of the training experiences are sustained in other ways -not local community- from international organizations.

In the historical analysis inspired by the ethical singularity, they rescue liberating community knowledge linked to the support of formative experiences in most of them. In others, deconstruction becomes an educational action on a daily basis.

References Références Referencias

1. Freire, P. (1970). *La educación como práctica de la libertad.* Coed. Buenos Aires: Siglo XXI, Montevideo: Tierra Nueva. 4ta.ed.Trad. Lilián Ronzoni.
2. Gutiérrez, F. (2005). *Educación como praxis política*. Delegación Coyoacán: México. Siglo XXI. [consulta 17 mayo 2015>]. Recuperado de: http://books.google.es/.
3. Nuñez, C. *et al*. (1993). *Nuestras prácticas…. Perfil y perspectivas de la Formación de Educadores Populares en Latinoamérica*. CEAAL.(coord.) Carlos Nuñez. Guadalajara: Instituto Mexicano para el Desarrollo Comunitario, A.C.
4. Rebellato, J.L. (2000). *Ética de la Liberación*. Montevideo: Editorial Nordan Comunidad.
5. ……...(2008). *La encrucijada de la ética: Neoliberalismo, conflicto Norte-Sur, Liberación.* Colección Caronte Ensayos. 3era. ed. Montevideo: Nordan Comunidad.
6. Salinas, B. (2000). Aportes de la Educación Popular al proceso de democratización política. Educación Popular: Nuevos Horizontes y Renovación de compromisos. *La Piragua Revista Latinoamericana de Educación y Política*, 18(II). [consulta 20 de junio de 2017] Recuperado de http://www.ceaal.org/v2/cpub.php
7. Torres, A. (2011). *Educación Popular, Trayectoria y Actualidad*. Caracas: Universidad Bolivariana de Venezuela. [consulta 18 de junio de 2017] Recuperado de https://dalbandhassan.files.wordpress.com/2011/04/educacion-popular-a-torres.pdf
8. Vigil, C. (1989). *Educación Popular y Protagonismo Histórico: una opción para América Latina.* Buenos Aires: Editorial Hvmanitas.
9. Villasante, T. (2002). *Sujetos en Movimiento: Redes y procesos creativos en la complejidad social. Construyendo Ciudadanía/4*. Montevideo: Ed. Nordan Comunidad.
10. Vitón, M.J. (2012). *Teoría y política de la educación: Reflexiones para el proceso formativo*. Madrid: Catarata.
11. Vygotsky, L. S. (1978). *Mente en Sociedad* (título original Mind in Society). Cambridge, MA: Harvard University Press. [consulta 11 septiembre 2015]. Recuperado de https://es.scribd.com/doc/187216882/Lev-S-Vygotsky-Mind-in-Society-the-Development-of-Higher-Psychological-Processes

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Current State of the National Education System of the Republic of Uzbekistan

By Madina Tursunova

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Abstract- The paper states that in recent years Uzbekistan has been making systematic efforts to improve the quality and effectiveness of the system of education and upbringing, the formation of modern knowledge and skills in kindergartens, pupils and students, ensuring mutual close cooperation and integration of the systems of education and science, the continuity and continuity of education. It is pointed out that the result of wide public discussion by the Presidential Decree was the adoption of the Development Strategy of New Uzbekistan for 2022-2026 and the State Program for its implementation, a separate section of which includes a number of goals directly related to education, which is the subject of the article.

Keywords: national education system; quality of education; efficiency of education system; higher education; institutions of higher education; education sector; credit-module system; educational programs; national education; attestation and state accreditation of educational organizations.

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Current State of the National Education System of the Republic of Uzbekistan

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Abstract- **The paper states that in recent years Uzbekistan has been making systematic efforts to improve the quality and effectiveness of the system of education and upbringing, the formation of modern knowledge and skills in kindergartens, pupils and students, ensuring mutual close cooperation and integration of the systems of education and science, the continuity and continuity of education. It is pointed out that the result of wide public discussion by the Presidential Decree was the adoption of the Development Strategy of New Uzbekistan for 2022-2026 and the State Program for its implementation, a separate section of which includes a number of goals directly related to education, which is the subject of the article.**

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Introduction

Along with this, the current state of the national system of education and upbringing requires the implementation of consistent measures to modernize it based on modern requirements, educate young people as spiritually rich and physically developed individuals with high knowledge and spirituality, increase the authority of leaders and teachers of educational institutions, create conditions necessary for their effective operation [1].

In Uzbekistan, graduate enrollment in higher education increased from 9% in 2016 to 28% in 2021.

Over the past 5 years, 64 new higher educational institutions have been opened. At present, the total number of higher education institutions in the country has reached 141.

Young people have the opportunity to get higher education without leaving the industry. To this end, 75 institutions of higher education have opened correspondence courses, and 21 institutions of higher education offer evening education.

Based on new technologies, based on the needs of constantly changing sectors and branches of the economy, over the past 5 years, 134 bachelor's and 147 master's specialties have been reorganized.

The quota for undergraduate admission was approved in 2016 at the level of 58,012 people, and in 2021 this figure reached 170,655 people (an increase of 3 times). Student enrollment in 2016 from 279,674 in 2020 to 692,611 (increased by 2.1 times).

Admission rates for master's programs with the aim of forming a scientific and pedagogical reserve of universities from 5,000 in 2016 to 12,900 in 2021, and the share of state grants increased from 30% in 2016 to 60% in 2021.

Over the past 5 years, branches of 19 foreign universities (including USA, UK, Japan, Russia, Turkey, Belarus, Latvia, India, etc.) and 26 branches of foreign universities have been established.

Joint educational programs with foreign universities have been introduced, providing for the issuance of double diplomas. In 2018, on the basis of joint programs, 15, and in 2021, 58 universities will be engaged in personnel training.

The credit-module system has been introduced in 49 universities.

The proportion of teachers with advanced degrees in higher education increased from 31.9% in 2016 to 38% in 2021.

For the first time, 4 universities of Uzbekistan, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, National University of Uzbekistan, Samarkand State University, Tashkent State Technical University entered the QS company rating for 2021 in Eastern Europe and Central Asia.

For the first time, the National University of Uzbekistan, Tashkent Medical Academy and Tashkent Institute of Irrigation and Agricultural Mechanization Engineers were mentioned in the industry ranking of the rating company Times Higher Education (THE).

10 universities have been transferred into self-financing.

A system of continuous professional development of managers and teachers has been introduced based on the principles of variability and complementarity of direct and indirect forms of professional development related to professional activities.

The system of continuous professional development of managers and teachers:

- independent advanced training in the specialty;
- alternative advanced training;
- forms of direct training in specialized institutions for retraining and advanced training based on educational programs.

The transition to higher education began with the introduction of the Digital University model.

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Distance learning methods based on information and communication technologies have been introduced into the educational process.

If in 2016 there were 274 thousand places in educational buildings, 49 thousand places in student dormitories, then by 2021 this figure will reach 334 thousand (121%) in educational buildings and 61 thousand (124%) in student hostels.

A system of vocational educational institutions has been established, consisting of 339 vocational schools, 199 colleges and 187 technical schools.

In recent years, in order to support young people in need of social protection, additional fees have been allocated for admission to higher educational institutions of the republic on the basis of a separate state scholarship. In particular, this year, on the basis of state grants, 3,155 additional places were allocated for young people with disabilities, 1,580 for orphans, graduates of the Houses of Mercy and the Children's Town, and 2,000 for women.

At the same time, the number of students enrolled in state-funded higher education institutions increased by at least 25 percent.

In order to create conditions for young people to master foreign languages at a high level in accordance with international staffing requirements, in the 2021/2022 academic year, the admission parameters to higher educational institutions specializing in teaching foreign languages have been doubled, and the number of applicants on state grants has tripled.

In 2021, the base salary of university professors and teachers increased by an average of 3.3 times compared to 2016. The difference between the base salary of a professor with a PhD and a teaching assistant has been increased by 2.1 times (previously this figure was 1.5 times).

Compared to 2020, in 2021 the current salary of teachers working in academic lyceums at higher educational institutions increased from 16% depending on the category to 33%.

Starting from the 2019/2020 academic year, scholarships will be paid from the state budget, and scholarship contracts will be paid to disabled students of the 1st and 2nd groups studying on a paid basis, as well as orphans and children from disadvantaged families. about parental care.

The Student Incentive Fund was created at the expense of 10% and 2% of the planned revenue under the contract.

From the 2020/2021 academic year, students studying at higher educational institutions have received the right to pay the contract amount in equal installments four times during the academic year.

From the 2021/2022 academic year, the "President's Scholarship" and "Special Scholarships for Girls" are introduced. Scholarship "Presidential Grant" is applied in the amount of the Presidential Scholarship (1,992,310 soums) to 200 students who scored the highest scores in entrance exams for full-time bachelor's programs (tests, professional (creative) exams, written exams). and the republican budget funded by funds.

The "Special Scholarship for Girls" is set at the rate of the basic stipend in addition to the monthly stipend, regardless of whether they study "excellent" and need social protection, receive education on the basis of a state scholarship or an agreement.

The holders of these scholarships are determined on the basis of criteria set by the scholarship committee of higher education institutions.

Starting from the 2021/2022 academic year, all higher educational institutions in the country were provided with educational loans for undergraduate and graduate students of full-time education on a paid basis.

Since the formation of the Republic of Uzbekistan as an independent state, the Government of Uzbekistan has developed and implemented plans to reform and develop the education sector. As a result of the study in the educational sphere, we have identified 5 stages of reforming:

The first stage was carried out from 1992 to 1997: At this stage, the Law "On Education" of the Republic of Uzbekistan of 1992 was developed, which states that education and training is based on the principles of democracy and humanism, which subsequently involves its reform.

The second stage from 1997 to 2001: At this stage, according to the new Law on Education, the content of the education system has been updated.

The third stage was carried out from 2001 to 2005: At this stage, in accordance with the monitoring of the implementation of the 1st period, the national programs, compulsory education is introduced.

The fourth stage from 2005 to 2016: In this period, according to the socio-economic development of the country, further improvement of the system of personnel training is being carried out [2].

In the Republic of Uzbekistan, the direction regarding education has been declared as a priority, and in addition to making changes to the procedure for adopting the norms prescribed in international agreements, the item indicating the independence of educational institutions has been excluded [3]. The new law on education defines the criteria for the quality and content of education, and its implementation of generally accepted educational standards according to the types of education.

The fifth stage of transformations is carried out from 2017 to the present: During this period, the Action Strategy was approved in 5 areas from 2017 to 2021, which are priorities for the effective development of the Republic of

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Uzbekistan [4]. One of these areas is the development of national education, namely:

- in order to meet the needs of the labor market, training personnel, increasing the quality and accessibility of educational services, maintaining continuous education;
- creating conditions and equipping educational institutions with modern material and technical equipment and the latest educational literature;
- development of the preschool educational institution system and advanced training of the pedagogical staff of the preschool educational institution;
- creation of educational institutions with in-depth study of individual subjects;
- development of sports infrastructure;
- creation of conditions for further employment of students in the received specialties;
- development of the quality of teaching in accordance with the teaching standards approved at the international level;
- creation and development of research centers at universities [5].

If we consider the changes in the legislation that have occurred, then there have been updates in the Law on Education. In accordance with Article.6. the updated Regulations on the State Testing Center under the Cabinet of Ministers of the Republic of Uzbekistan were approved, the Ministry of Preschool Education was established [6].

The departments of the methodological service were abolished and instead of the abolished institutions, inter-district centers for methodological support of educational institutions under the Ministry of Education of the Republic of Karakalpakstan, as well as Regional Department of Public Education and Main Department of Public Education Tashkent city, the sector of methodological support of the educational process of the District Department of Public Education without the status of a legal faces [7].

Within the structure of the Ministry, the Control and Legal Service of the Minister has been established, which is endowed with the following powers:

- implementation of internal control in the Department of Public Education;
- implementation of legislative measures in terms of unreasonable interference of state bodies and other organizations in the activities of the Department of Public Education.

Also, under the Ministry, the State Unitary Enterprise "Engineering Company for the development of technical specifications for project documentation and monitoring the quality of construction projects in the field of public education" was formed, which is a single supplier of works and services.

In the system of secondary general education, they returned to eleven-year education.

In 2019 according to the Concept for the development of the public education system of the Republic of Uzbekistan until 2030, the main areas of development are defined:

"Entry of the Republic of Uzbekistan by 2030 into the ranks of the first 30 leading countries in the world according to the PISA International Student Assessment Program;

- qualitative updating of the content of the system of continuous education, training, retraining and advanced training of professional personnel;
- improvement of teaching methods, phased introduction of the principles of individualization of the educational process;
- strengthening the material and technical base and increasing the efficiency of providing budgetary funds;
- introduction of modern methods and directions of out-of-school education in the education of young people and ensuring their employment;
- expanding the competitive environment in the system of public education through the development of public-private partnerships;
- introduction into practice of five initiatives, including a set of measures aimed at creating additional conditions for the education and upbringing of young people;
- a gradual increase in wages and material incentives, social protection of employees of the rural educational institutions [8].

Work has begun on the creation of private universities in the republic. The following preferential conditions are defined for their creation:

- exemption from taxes, customs payments for a period of 10 years;
- provision of buildings with a functionality of up to 30 years as a university.

On September 24, 2020, the President of Uzbekistan Shavkat Mirziyev signed the law "On Education" [9]. The main differences of the new law:

Firstly, the classification of forms of education has been expanded:

- with a break (daytime) and on-the-job (correspondence, evening, remote);
- dual, combining theory - in an educational organization and practice - at the student's workplace;
- education in the family and self-education;
- adult learning and education;
- inclusive education for children (persons) with physical, mental, sensory or mental disabilities;

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- external study - self-study of training programs with subsequent final and state certification in state educational institutions;
- training of personnel in the field of defense, security and law enforcement;

Secondly, the powers of the Cabinet of Ministers, the State Inspectorate for Supervision of the Quality of Education (Education Inspectorate), the Agency for the Development of Presidential, Creative and Specialized Schools, as well as relevant ministries and local authorities are detailed.

Thirdly, more attention is paid to the legal status of all participants in the educational process:

- Educational organizations - the procedure for their creation, reorganization and liquidation, the requirements for the charter;
- Teaching staff, students, their parents and other legal representatives - rights, obligations and guarantees. Measures of social protection of participants in the educational process are determined.

Fourthly, issues related to state educational standards and requirements, the introduction of curricula and programs into the educational process, experimental and innovative activities in the field of education have been resolved. The mechanism of admission to study, including targeted admission, is described.

Fifthly, the instruments of state regulation and control are regulated:

a) *The first are:*

- licensing of non-state educational organizations - licenses are issued by the Education Inspectorate for an unlimited period, separately for each type of education;
- attestation and state accreditation of educational organizations - carried out by the Education Inspectorate for a period of 5 years. At the same time, non-state educational organizations are considered accredited for 5 years from the date of obtaining a license, after which they undergo attestation and accreditation. Organizations that have passed state accreditation are included in a special register, information about this is posted on the website of the Education Inspectorate;
- recognition of documents on education received abroad after January 1, 1992, as well as affixing an apostille on official documents on education in our country. Recognition and apostille are also within the competence of the Education Inspectorate;

b) *The Education Inspectorate has the right to:*

- control and monitor the quality of education in non-state educational organizations - with the notification of the business ombudsman;
- identify non-compliance with the legislation of the content and quality of education provided by educational organizations - make an order to eliminate it. For failure to comply with the order - to cancel the certificate of state accreditation of the educational organization.

As we know, within the framework of the Action Strategy for the five priority areas of development of the Republic of Uzbekistan in 2017-2021, about 300 laws have been adopted over the past period, more than 4 thousand decisions of the President of the Republic of Uzbekistan aimed at fundamentally reforming all spheres of life of the state and society, including in the field of education.

It should be noted that section IV "Conducting a fair social policy, developing human capital" provides for a number of the following goals directly related to education:

- *Complete revision based on advanced foreign experience and implementation in practice until 2026 of curricula and textbooks, on the basis of which, in* accordance with the National Curriculum, it is planned to create 699 new textbooks, workbooks, teaching aids for teachers and mobile applications by 2026, including 2022 with 296 items.

In order to train teachers in new methods, the creation of 769 video lessons for the Electronic Platform for Advanced Studies by 2026.

Implementation of a system of pilot testing and examination with the participation of foreign specialists of textbooks and educational and methodological complexes in general education schools;

- *Improving the quality of education in schools and raising the knowledge and qualifications of teaching staff to the international level.* Determination of domestic or international certification requirements for each subject for conducting activities in the school;
- Bringing the level of enrollment in higher education to 50% and improving the quality of education;
- Targeted preparation of 10 potential higher educational institutions for inclusion in the international rankings QS and THE until 2026;
- Construction of student hostels for 100 thousand places;
- Bringing the number of non-state higher educational institutions to at least 50 by 2026;
- Doubling the scale of sending freely and creatively thinking youth to prestigious foreign universities through "El-Yurt Umidi" Foundation, while sending 50% of young people to technical, exact sciences and IT.

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References Références Referencias

1. Decree of the President of the Republic of Uzbekistan “On measures to develop the fields of education and upbringing, and science in the new period of development of Uzbekistan”, November 6, 2020, PO-6108 https://lex.uz/docs/5086015
2. Buranova, D. D. Higher education in Uzbekistan from the perspective of teaching foreign languages: trends and prospects / D. D. Buranova. // Young scientist. - 2014. - No. 1 (60). — S. 494-498.
3. Sultonova, M. Sh. Use of information technologies and distance learning in educational institutions of Uzbekistan / M. Sh. Sultonova. // Young scientist. - 2017. - No. 3.2 (137.2). - S. 20-21.
4. Action strategy for five priority areas of development of the Republic of Uzbekistan in 2017-2021. Official website of the Ministry of Foreign Affairs of the Republic of Uzbekistan. [electronic resource]. URL: https://mfa.uz/ru/press/news/actionstrategy/
5. Tilyabaev Z., Kushiev Kh.H., Usmanov B.Sh. The technology of “Knowledge via science” in the educational system og higher educational institutions // Collection of materials of the international scientific and practical conference “Integration of science, education and practice as a mechanism for the effective development of modern society”. Belgorod University of Cooperation, Economics and Law. Nalchik Institute of Cooperation and Law. Nalchik 2016, April 21-22. 1 vol. pp.173-176
6. In 10 years, Uzbekistan should become an educational hub of Central Asia // Int.: http://www.gazeta.uz/ru/2018/09/18/education/
7. Islamgulov D.R., Lubova T.N. Competence is the basis for the implementation of the goal of the Federal State Educational Standard / D.R. Islamgulov, T.N. Lubova // Actual problems of teaching social-humanitarian, natural-science and technical disciplines in the conditions of modernization of higher education. Materials of the international scientific-methodical conference. Ministry of Agriculture of the Russian Federation, Bashkir State Agrarian University. 2014, pp. 133-137.
8. Zhukovskaya I.E. Innovative aspects of improving management processes in a higher educational institution based on the use of modern information and communication technologies // Open Education No. 4, 2016, p. 17-22.
9. Annex No.1 to the Decree of the President of the Republic of Uzbekistan “On the development strategy of the new Uzbekistan for 2022-2026” dated 01.28.2022 №PO-60

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Losonczi, Ágnes: A Zene Életének Szociológiája Zeneműkiadó, 1969

By Bella Emerencia Héjja
University of Debrecen

Introduction- Agnes Losonczi's book, 'The Sociology of Musical Life' (*A zene életének szociológiája - hun.)* studies the role music fills in our society. The reader might find themselves puzzled as the research is so extensive, it is hard to decide which area of expertise the author originates from. History and sociological issues are discussed as well as folk music, classical music and popular music. The wording is rather academic, yet easy to read although for the aforementioned reasons, a basic understanding of history and music may be necessary.

This publication is rather peculiar because sociological studies were only allowed to be conducted from the 1960's in Hungary under the Socialist regime as the system finally recognized this field of science - although it was kept under surveillance (Losonczi. 2020). This period clearly left a mark on the study, however the author cleverly integrated the mandatory steps and only makes this work more authentic.

The author was born in 1929, in Debrecen, Hungary. She had been awarded multiple times for her active work until 2005, such as the Academy Award (2004), Middle Cross of the Order of Merit of the Republic of Hungary (2007), Príma Prize (2007), Széchenyi Prize (2017) and Hazám Prize (2019).

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Introduction

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The publication processes the results of three studies. The first study was conducted in 1962 on 500 factory workers in MÁVAG (Hungarian Royal and State Iron- Steel and Machine Manufacture - *Magyar Királyi Állami Vas-, Acél- és Gépgyárak - hun.*), the second study was done in 1964 along with the Hungarian Scientific Academy's Sociological Research Group on three villages surrounding Gyöngyös, one of which was an industrial village (Gyöngyössolymos), another was an agricultural village (Gyöngyöstarján) and compared these settlements. The third and final study consists of 150 case studies with the participation of music savvy persons.

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The book is divided into three chapters. The Introduction highlights certain results from the upcoming chapters. Our review's aim is not to describe the entire material as we are certain that only by reading the entire publication can one gain its intended value.

The first chapter, titled 'A Need for Art - without Art' (*A művészet igénye - művészet nélkül - hun.*) tells the reader about the rural people's musical needs which are heavily influenced by environmental sounds. The musical function in question in this case is based on needs and traditions. According to Losonczi's observations, the perception of sounds are determined by the perceptual capacity of a person and the working conditions. The importance of a certain sound is based on vital interests instead of aesthetic segments. That is, the people's relation to a certain sound determines whether it is pleasant for them. Unfamiliar sounds are usually unpleasant. A fine example of this is when the author recounts the statements of rural women (p. 37). Many of them resented the sound a tractor made which was, to their accord, a negative influence on rural life. On the other hand, a woman found a bus, a sound that is connected to city life, pleasant because her husband used to take the bus to travel home. Therefore, the experience determines whether a sound is pleasant or not.

Rural people consider music as an essential part of life and identified it as life itself, while its absence was associated with captivity. According to the study, music can be invigorating (renews and strengthens a person), cheers people up, entertains and relaxes the listener and provides a moment of escape.

The second chapter is The Social Nature of Musical Choice (*A zenei választás társadalmi természete - hun.*) in which the author attempts to observe the musical contents of these musical needs. The most common for of singing was in the occasional singing at social events. People seldom sang in choirs and instrumental music was uncommon, although many wished to learn to play instruments or had their children enrolled for musical studies. A characteristic instrument of the era, the harmonica was the most widespread instrument and the zither suffered a remarkable loss in popularity. The prevalent genres were Hungarian melodies and folk songs, since the participants had little idea of the difference between the two. Classical music was usually at the end of the popularity list, along with jazz which was indifferent or unknown to them. Rural

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society regarded classical music as a genre which required an educational privilege to enjoy and as a symbol of high social stature.

Not all aspects of the cultural revolution favored the advancement of musical literacy. While the first 'revolutionary enthusiasm' stage increased the number of art lovers, the second stage made culture a mandatory part of a political program. Enforced cultural education did not bring in desired results, so a more mild, third stage allowed eventually for previously oppressed genres, authors, works and musical functions, such as entertainment to enter people's mundane lives.

The musical preferences observed in the workers of MÁVAG were similar to the rural populace, however, the preference for symphonic and opera music was higher. This may be due to the fact that classical music was more available to them, the operas' rise of popularity was helped by radio and television programmes and opera films. The greatest hindrance to understanding and appreciating symphonic music was Hungarian melodies, although Hungarian folk songs and jazz were strong factors in its rise to popularity. The factory workers' least favorite genre was folk music, since they only experienced it during their elementary studies as a part of the curriculum, in contrast to the older generations since it evoked their time as a revolutionary youth after their liberation. Dominant genres were changing in each generation according to the social groups' needs and ideals. Emotional identification was the key factor.

In the third chapter, Musical Connoisseur Types and the Variability of Musical Values (*A zeneértők típusai és a zenei értékek változékonysága - hun.*), the author publishes the results of her interviews with 150 music connoisseurs. An especially interesting part of this chapter is the reflection of the changes in music authors and musical eras which puts the authors' work in a sociological and historical concept, something that was seldom done before. Losonczi divided music connoisseurs into three groups which forgoes the system established by S. Borris or T. W. Adorno. The author pointed out that in order to enjoy music, one must put in a certain investment, this is also underlined by László Stachó (2005). Losonczi categorizes musical understanding into five groups, from singable tunes all the way to atonal music, the latter is dominated by the assertion of compositional principles. By regularly listening to music, one can go from the first to the third level, however, the fourth and fifth level requires complex knowledge and focused attention, hence authors that fall into this category are less popular. When observing modern popular music we can easily conclude that it does not require a higher level of understanding, nor attention, hence their popularity (Gönczy, 2015).

Another result stated in this chapter points out that art and the outlook on life are not always in unison. A person may listen to musical conflicts to relieve their internal struggles, while a revolutionary may choose to ease their mood by listening to music while doing his daily activities.

The publication reveals multiple aspects of the social circumstances of musical taste and musical need. The author suggests that people's needs are in constant interaction with the changes and needs that arise in a society. Losonczy published her results in 1969 but her work still possesses value to musicians today, not only in the faculties of history and sociology, but it also helps them find their place in modern society. Even though there were radical changes in how rural and urban people have been living since the 1970's and Hungarian melodies were replaced by popular music, classical music is still preferred mostly by members of high society and is often rejected by the majority (Kristóf et Kmetty, 2018). This is exactly the reason why it is crucial to provide concerts in non-formal settings to educate the community and help them embrace musical experiences (Váradi, 2016).

References Références Referencias

1. Gönczy László (2015). A zene befogadása – zeneértés – zeneközvetítés. In Vas Bence (szerk.). Zenepedagógia tankönyv. Pécsi Tudományegyetem Művészeti Kar, Zeneművészeti Intézet, 205–222. https://www.art.pte.hu/sites/www.art.pte.hu/files/files/menuk/dokument/tudomany/innovacio/zmi/zenepedagogia_vegleges.pdf
2. Klopfer, Zsófia (2015). Losonczi Ágnes gyűjteménye. *Socio. hu,* 2015/3. https://socio.hu/uploads/files/2015_3/losonczi.pdf
3. Kristóf, Luca és Kmetty, Zoltán (2018). *Szociológiai Szemle*, 29(2). 49–67. https://szociologia.hu/dynamic/49_67_oldal.pdf
4. Losonczi, Ágnes (2020). Elöljáróban: a kutatásaimról, a pályaívről – az út, amit megtettem. In Losonczi Ágnes. Losonczi Ágnes műhelyéből. Tanulmányok (1960-2017). Gondolat Kiadó, Budapest, 7–30. http://real.mtak.hu/120381/1/Losonczy_Muhely.pdf
5. Stachó, László (2005). Hányféleképpen értjük és szeretjük a zenét? – A zeneértés velünk született, mélylélektani, kulturális és kognitív útirányjelzői. In Lindenbergerné Kardos Erzsébet (szerk.). *Zeneterápia* (szöveggyűjtemény). Kulcs a Muzsikához Kiadó, Pécs, 235–250.
6. Váradi, Judit (2016). Közönségnevelés. Élmény – koncert - élmény beépítése a köznevelésbe. *Parlando*, 2016/4. https://www.parlando.hu/2016/2016-4/VaradiJudit.htm

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Perception in Teaching and Learning English for Special Purposes in Benin Public Universities

By Mathias Hounnou Azoua

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Abstract- The investigations were carried out over a period of three academic years i.e. from 2018 – 2019, 2019- 2020 and 2020- 2021. Research involved gathering data on learners' views on their learning needs and expectations, on encountered difficulties in learning at Universities, on the ranking of preferences for language skills, i.e. the degree of importance of proficiency in different areas of language, and collecting and analyzing learners' self-assessment data throughout the course. The techniques of gathering data included different types of questionnaires administered to learners at the beginning, in the middle and at the end of the courses. The aim of research was to consider the issues of learning English on a University level and explore the ways of improving the quality of learning and consequently the teaching methods. For the findings, learners' attitudes, difficulties and production allow to create the needs and foster proficiency in language for professional purposes in some universities.

Keywords: *perception; teaching; learning; english for special purposes, LMD; universities.*

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I. Introduction and Research Background

It is common knowledge that although students spend more than seven years (including kindergarten and primary schooling) studying English as a school subject, this is not sufficient for them to achieve an intermediate level of proficiency in English as a Foreign Language in Benin context. The data on the proficiency of newcomers to Public Universities of Benin gathered over four years were presented in the previous paper (Hounnou Azoua, 2021). The findings can be summarized as follows: more than 44% of newcomers to Universities in Benin are false beginners and minimal users; 24 per cent are very limited users, 27 per cent are limited users, and 5 per cent are at post-elementary level. The knowledge and usage of English that school leavers possess gives rise to concerns. Students find it very hard to cope with learning English for Special Purposes or English for Specific Purposes basically because of lack of the General English skills. The ESP course introduces learners to English for economics, medicine, agronomy, law etc. …i.e. the kind of language they will face in their future profession. Learners have to master terms used in their field of study, to be able to understand formal professional texts and authentic recordings of lectures and produce formal pieces in writing as well as to be able to make professional presentations and participate in discussions on contemporary research field issues. The natural question that occurs is why school leavers do not possess adequate language skills, and an attempt has been made to tackle this question.

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II. Learners' Experience and Research Method

Students experience of learning English at school was investigated formally - through administering a questionnaire - and talking to students informally outside classroom hours. The questionnaire referred to learners perceptions about studying English as a school subject as well as to their attitudes to learning it and experience they had before entering University. There have been 23 respondents, and the findings are presented in percentage in the Table 1.

Examining the learners' answers in the Table 1, some interesting conclusions can be drawn. More than two thirds of students enjoyed learning English, and 86% liked their teachers. Although 71% of students learned phrases and communicative language skills, 86% of them had never had a chance to use English outside the classroom. A vast majority of students liked English and wanted to learn it, but 43% were too shy to practise it with their peers. Staggering 86% were not stimulated by their classes. This factor is particularly disturbing, since motivation in learning is a major point for success. Although school children not only learned vocabulary and grammar rules, but their classes did not focus on oral skills (57%). In some schools there were up to 22 learners in language groups. A simple calculation shows that in large classes the students talking time would be limited to 2 minutes in 45 minutes class provided there was no teachers talking time which is unrealistic. In reality, there is a substantial gap between teachers and students talking time in secondary schools teachers use up half of the classroom time for instruction in a foreign language class. Even given an opportunity to use a target language in pair or small group work, a vast majority of school children feel insecure and use a mother tongue instead. The lack of speaking practice deprives learners of developing adequate oral skills.

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Table 1: Learners experience of learning English at school.

Questions	Yes	No
The classes did not focus on oral skills	57%	43%
You only learned grammar rules	43%	57%
You only learned vocabulary	-	100%
You learned phrases and communication skills	71%	29%
You were too shy to talk to your friends in English	43%	57%
You were not stimulated by classes	86%	14%
You were not stimulated by classes	71%	29%
You never had a chance to speak out of class	86%	14%
You liked your teacher of English	86%	14%
You had 3 4 5 classes per week	86% -4 lessons	14% -3 lessons
The number of students in your class	86% - 12 stud.	14% - 22 stud.
You liked English and wanted to learn it	57%	57%
You learned enough to pass your exam	72%	28%
You think you are bad at languages	57%	43%
Your experience of learning English is positive	72%	28%

The issues discussed in this section are not only problematic in Benin schools. They are common in schools, where teaching is conducted in either French or local languages. English education in this country has been persistently inefficient - producing students equipped with a minimal command of English. A major reason seems to be an examination-orientated teaching. In their English classes learners carry out various tasks that are included in the exam papers, e.g. multiple choice or gap-filling exercises for checking reading comprehension skills; learning to conduct dialogues on certain topics or performing role-plays, all of which are quite often irrelevant to real life communication tasks. The reality of exam-orientated education places the emphasis on learners' preparation for tests and examinations instead of highlighting the long-term English learning for further life-long needs, i.e. for studies, a future job, international communication, etc.

III. Learners Priorities in Studying English and Data Presentation

To obtain a clearer idea of learners' priorities in different aspects of language learning, the respondents were requested to indicate how important it was for them to become proficient in various areas of language use. The questionnaire administered at the two multidisciplinary Universities of Benin (Hounnou Azoua, 2021) has been adapted for this purpose. The respondents were asked to prioritize the importance of different skills in certain areas. The data are presented in the Table 2. For comparison, the first and second year students' ratings (unimportant, important and essential) are given in the same column. All the figures in columns show the number of students who ticked appropriate answers. The questionnaire was administered to the first year students after the first term of doing ESP at university, and to the second year students after three terms of ESP, i.e. before the final exam. It is of interest to compare how learners' attitudes change in the course of studies.

The Table is divided into five sections (numbered 2.1 to 2.5 for convenience of analysis), which cover different language skills and applications.

Table 2: Language skills and areas of their application.

2.1

READING	UNIMPORTANT 1st year2nd year	IMPORTANT 1st year2nd year	ESSENTIAL 1st year2nd year
ESP texts	1-	25	54
Newspapers	-1	66	22
Magazines	32	46	11
Books	21	56	12

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2.2

SPEAKING	UNIMPORTANT 1st year 2nd year	IMPORTANT 1st year 2nd year	ESSENTIAL 1st year 2nd year
Presentations	51	-5	33
Formal conversations	-3	43	42
Informal conversations	1-	57	22
WRITING	**UNIMPORTANT 1st year 2nd year**	**IMPORTANT 1st year 2nd year**	**ESSENTIAL 1st year 2nd year**
Summaries	-5	74	1-
Formal letters	11	27	51
e-mails	51	17	21

2.3

LISTENING TO	UNIMPORTANT 1st year 2nd year	IMPORTANT 1st year 2nd year	ESSENTIAL 1st year 2nd year
Lectures	4-	28	21
TV/Radio	31	35	23
English speakers	1-	65	14

2.4

TRANSLATING	UNIMPORTANT 1st year 2nd year	IMPORTANT 1st year 2nd year	ESSENTIAL 1st year 2nd year
From English	2-	28	51
Into English	21	45	33

2.5

OTHER USAGE	UNIMPORTANT 1st year 2nd year	IMPORTANT 1st year 2nd year	ESSENTIAL 1st year 2nd year
For telephoning	3-	59	--
For studies	1-	57	22
For traveling	2-	56	13
For exams	1-	47	32
Grammar	-2	25	62

Let us examine the data in the Table 2 closely. Professional reading (ESP texts) is a priority for both groups, while presentations are out of favour with the first year students. The second year students, who have already had some experience in making presentations in the classroom during the ESP course, are well aware of the importance of being able to speak in front of their peers, and in public for prospect.

Majority of the first year students are also unaware of the significance of electronic communication (e-mail), and they place more emphasis on formal letters, which is a consequence of the English training at school: writing a formal letter is one of exam tasks.

The issue of translation, both from and into English, is appreciated by all learners. For them, translation remains the main tool of comprehension. It implies that students are unable to grasp the meaning without translating from their mother tongue. Only proficient users of foreign language stop translating in using either productive or receptive skills. The examination-orientated learning remains a preference to nearly all students: only one person out of seventeen and the best student, as a matter of fact, too marked the exam question as unimportant.

Grammar also remains important or even essential to majority (88% of learners); listening to native

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speakers of English to 94%, and to radio/TV to 76%. An ability to participate in formal and informal conversations is marked by 76% of students. The second year students unanimously ranked telephoning skills as important while only two thirds of the first year students consider them important.

Finally, the important aspect in ESP learning remains an ability to understand lectures in subject matter. For obvious reasons, the second year learners they have had a two-term experience of listening to recorded lectures on their individual field of study matters ticked this item as their priority, while half of the first year students considered this item as irrelevant.

It would be interesting to rank preferences of all learners (by adding first and second year students' responses) in descending order of importance. To make the data easily perceptible the percentage approach has been used. The last column presents the sum of the first and second columns data. Thus, at least six items on the list are interpreted as important or essential. Quantitatively, other items are not far away.

Table 3: Skills in descending order of importance.

Skills	Important	Essential	Important or Essential
Reading ESP texts	42%	53%	95%
Reading newspapers	71%	24%	95%
Speaking informally	71%	24%	95%
Preparing for exams	65%	30%	95%
Listening to speakers	65%	30%	95%
For studies	70%	25%	95%
For travelling	65%	23%	88%
Grammar	41%	47%	88%
Writing formal letters	41%	47%	88%
Translation	35%	47%	82%
Telephoning	82%	-	82%
Listening to lectures	59%	18%	77%
Making presentations	30%	35%	65%

Ordering various aspects of proficiency by averaging responses presents a really interesting picture. The top rating of 95 per cent is given to reading ESP texts and newspapers, speaking informally, listening to native speakers, using English for studies and preparing for exams. Writing formal letters, learning grammar and using English for travelling is the learners' second priority (88 per cent), which is closely followed by necessity of telephoning skills and translation. However, the very important skills of understanding professional lectures and making presentations are at the bottom of the list, although majority of students realize their importance for future career prospects.

It should be emphasized that our interpretation is presented for a rather small sample of respondents and statistically can be considered reliable within the probability of 0.95 and 3σ error range. However, the significance of the findings lies in raising learners' awareness to the life-long learning process and formulating English learning priorities for their future career.

IV. Learners Difficulties in Learning English

The reliable information about learners' difficulties in learning can be obtained from students' self-evaluation and self-assessment. In our settings, various self-analysis techniques have been applied. Further on, the findings from the conducted surveys are to be discussed.

The first survey involves documented questionnaires aimed to investigate how students rank learning problems that they encounter in different ESP areas. The second technique involves learners' self-assessment and rating their own performance, and it will be discussed in the following section. A documented survey of students' major difficulties in ESP has been similar to one designed by Medgyes (1994) and modified to suit our settings. There were 23 respondents who participated in the survey and were requested to identify their ESP problem areas. The data are shown in the Table 4.

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Table 4: Difficulties in using ESP (after P. Medgyes).

Skills	The most difficult	Average	The least difficult
ESP vocabulary	1. 4%	18. 74%	5. 22%
Speaking	6. 26%	12. 52%	5. 22%
Listening	4. 17%	10. 44%	9. 39%
Writing	10.44%	12. 52%	1. 4%
Reading	1. 4%	14. 61%	8. 35%
Grammar	12.52%	9.39%	2. 9%
Oral fluency	16. 70%	7.30%	-
Fear of mistakes	7.30%	13.57%	3. 13%

Skills	The most difficult	Average	The least difficult
Tenses	6. 26%	17. 74%	-
Word order	11.48%	10. 44%	8%
Prepositions	6. 26%	17.74%	-

There are two figures in all three columns of this table. The first one gives the number of students, and the second the percentage of respondents who ticked appropriate answers. The frequency of occurring difficulties is ranked on the triple scale the most difficult, average and the least difficult.

Similarly as in the previous section, it is worthy to rank the responses in order of significance. The ranking has been conducted and presented in the Table 5.

Table 5: Ranking the significance of common problematic areas.

Language Area	The Most Difficult
Oral fluency	70%
Grammar	52%
Word order	48%
ESP Writing	44%

Language Area	The Average
ESP vocabulary	79%
Tenses	74%
Prepositions	74%
ESP Reading	61%
Fear of mistakes	57%
Speaking	52%
Listening	44%

Language Area	The Least Difficult
ESP Listening	39%
ESP Reading	35%

Oral fluency remains the most difficult area for a vast majority of learners. Oral fluency implies the ability to speak about any topic without preparation. The same fact was highlighted elsewhere (Medgyes, 1994). Grammar in general and word order in particular are the important areas of language learning and cause difficulty for our respondents. The skill of writing is another problematic area because learners have already had some practice in writing summaries, essays or preparing formal presentations.

The language areas of average difficulty are ranked closely: ESP vocabulary, tenses, and prepositions are problematic to nearly three fourths of our students. Speaking skill is a priority to over half of the learners. ESP reading is not considered easy to almost two thirds of learners. Generally students do not attach much importance to reading, since a vast majority are sure they know how to read. However, students do not seem to have been taught the reading sub-skills like skimming and scanning and prefer to translate ESP passages word for word. Such an approach does reading slow and boring. The flaws in reading skills are easy for learners to conceal, because learners do all the reading as home assignments, and the speed of reading has never been checked in class due to the shortage of time. Only comprehension of reading the ESP materials has been checked on a regular basis by different means - through vocabulary tasks, comprehension questions or creative assignments, all of which clearly revealed learners difficulties in coping with professional materials.

The psychological aspect of language learning the fear of mistakes, which hinders learners learning has also been incorporated in the survey. It received as many as 57 per cent of responses. This implies that more than half of learners are intimidated by having to perform in front of their peers. The causes of

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performance fears are very individual and quite often have deep roots in the previous unsuccessful experience of language learning. Moreover, shy and unconfident learners focus on form and correctness in producing language and are aware of their deviations from the established norms of English, but unable to generate appropriate pieces. Psychologically, the fear of mistakes is a fear of losing face, and this feature typically is of mature adult learners (Rivers, 1992). Such learners are concerned with how they are judged by others. They are very cautious about making errors in what they say, for making errors would be a public display of ignorance (Shumin, 1997).

The least difficult areas of language skills to the third of respondents are listening and reading, 39% and 35%, respectively. Typically, learners complain that native speakers speak too fast. The explanation lies in learners' perception of non-stop authentic speech they are unable to process information as fast as they do it in their native language. Special training has been applied to develop students listening skills, which explains the relatively low percentage.

The interpretation of the presented data is quite apparent: learners are aware of what skills are the most important in ESP, and their rating of difficulties is quite realistic.

V. Learners Self-Assessment and Self-Grading

There have been two parts to this part of investigation. In the first part, the findings have been obtained in a non-documented form through tutoring, which allows learners to speak to teacher individually face-to-face and creates a relaxed atmosphere. In the second part, respondents were requested to grade their anticipated performance in their final test or exam, which has been done in writing.

During the first part of self-assessment some revealing data on learners' attitudes to studies at Universities have been obtained. The third of students admitted being lazy, failing to attend lectures without good cause and not doing any homework, basically because they considered lectures not compulsory. About half of students gave as an excuse for not carrying out assignments their work commitments. However, a failure to get credits in the first semester seems to be an effective factor to make students change their attitudes to studies on a University level.

In the second part of investigation, learners graded their anticipated performance in all language areas. The data have been compared with their actual performance. The findings are presented in the Table 6.

Table 6: Students self-grading data vs. teachers' grading in tests or final exams.

Language area	The same mark	Ms > Mt by 1 point	Ms > Mt by 2 points
Listening	22%	78%	-
Speaking	22%	56%	22%
ESP vocabulary	60%	22%	18%
Grammar	60%	20%	20%

The abbreviation Ms means marks given to themselves by students, and Mt given by a teacher in appropriate language areas, respectively.

The general overview of the data shows that learners tend to overestimate their performance in listening and speaking skills by one point, and only 22 percent of students give themselves the same mark as a teacher. However, it is important to highlight that one point difference is not really significant, because just 2 wrong answers in a test of 20 items lose one point in a mark. Thus, the interpretation of the data in the Table 6 is very straightforward learners are quite realistic about their future performance.

Students' self-estimation is based on how confident they are before taking a test or exam. This sense of self-esteem is a very viable factor in the process of learning and should always be encouraged. It has been noticed that unconfident learners do themselves injustice they usually perform worse that their more self-confident peers.

VI. Conclusion

It is tempting to use these specific concrete results for decision-making to make recommendations for changes in how teaching and learning should be carried out. Unfortunately, there is no the best way that suits everybody.

Small amounts of data, carefully analyzed, can be beneficial in terms of interpretation. The data presented here are from a dynamic study of different groups of learners over three academic years. Although statistically there have been small samples in all groups for drawing reliable statistic correlations, nevertheless, some reliable conclusions can be drawn.

First, responses of individual learners are related to their learning attitudes and aptitudes. Second, an essential part of the learning process is monitoring, or to be exact, monitoring the progress of each learner individually throughout the academic year. Examining each learner's attitudes, difficulties and production in different language areas allows to cater for their needs and foster proficiency in the ESP. Third, consciousness-

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raising in students to ways of mastering language skills is a valid part of pedagogic strategy. It implies encouraging learners' initiative and taking over responsibility for their own learning. Given space, time and clear directions learners are bound to succeed.

References Références Referencias

1. Hounnou, A. (2021). Language education stakeholders' attitudes and personality versus interactions and motivations progress in Universities of Benin Republic. (to be published).
2. Kavaliauskienė, G. (2002). Issues of Teaching English at USVP.
3. Kenning, M. M. (2001). Language learning Interests at University, *Language Learning Journal,* 23, pp. 48-57.
4. Medgyes, P. (1994). The Non-Native Teacher. Macmillan Publishers Ltd. Hong Kong. p.34.
5. Rivers, W. M. (1992). Communicating Naturally in a Second Language, Theory and Practice in Language Teaching. Cambridge University Press.
6. Shumin, K. (1997).Factors to Consider: Developing Adult EFL students Speaking Abilities. *English Teaching Forum,* 25(3), pp 2-7.

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A Study to Examine the Effect of Learning Culture on E-Learning Adoption in Selected Higher Institutions of Learning in Uganda

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A Study to Examine the Effect of Learning Culture on E-Learning Adoption in Selected Higher Institutions of Learning in Uganda

Olivia Damalie Najjemba [α] & Moses Kizito [σ]

Abstract- Here we should write a brief summary of our article to give the reader a glimpse of the paper.

Keywords: learning culture, e-learning, higher learning institutions, education and technology.

I. Introduction and Background

Historically, in the pre-independence of Uganda, educational opportunities were limited and only a few lucky ones were able to take the advantage of them. Public universities in Uganda dated back to the pre-colonial era when Makerere University was established in 1922 as a technical college to train public servants for civil service, teaching and parastatals (Kasozi, 2003). In 1937, the College metamorphosed into an institution of higher education and subsequently became a constituent College of the University of London in 1949. Makerere College served the students from other British colonial territories of Kenya, Tanganyika and Zanzibar (Owoeye & Oyebade, 2009).

Makerere University was the first and only public university in Uganda until 1987 and was initially a college and later changed to a university in 1949. Islamic University in Uganda (IUIU) was the first private university in Uganda and was established in 1988. To regulate higher education, and to guide the establishment of institutions of higher learning as well as ensure that quality and relevant education is delivered, the National Council for Higher Education (NCHE) was established by an Act of Parliament "the Universities and Other Tertiary Institutions Act, 2001". It supervises all universities and accredits academic programs.

Higher education is becoming increasingly competitive in terms of students, staff and resources. Because of the increasing demand for access to it by the masses, it has shifted from being the service of elite that it was, to a service open to the masses of walks of life. Until 1987, for instance, there was only one public University in Uganda with about 10,000 students; today there are Eight public and about 24 private Universities with a total of over 300,000 students that offer both undergraduate and postgraduate courses on day, evening, weekend, and long-distance sessions (Okwakol, 2009).

The National Council of Higher Education under the Ministry of Education and Sports (MoES) is responsible for the monitoring and supervision of the activities of all the institutions of higher learning. According to the profile of the MoES, the goals of the National Council Higher Education in the Ministry are to 'supervise, coordinate and guide the admission, training and teaching at all institutions of higher learning' in Uganda (MoES, 2002). The Higher Education Department has two distinct sub-sectors: the universities and other tertiary institutions.

Before Uganda announced a partial lockdown and the closing of schools and learning institutions due to COVID-19, for most of the public and private universities, the mode of teaching was the traditional "Lecturer-centered" type of teaching where the lecturer stands in front of the class and passes on knowledge to the students. In this type of mode, students are often seen to be passive recipients of knowledge. Moreover, the lecturer often delivers the lectures through "chalk and talk". In this day and age, with advance in technology given that, there is a need to supplement or even replace the chalk and talk mode of teaching and learning with new technologies where Information and Communication Technologies (ICTs) play a fundamental role in the lecture delivery, teaching and learning process. One of the modes of teaching and learning that can facilitate these using ICTs is the E-Learning mode. However, the adoption of E-Learning in most of the higher institutions of learning is influenced by the learning culture and any institution that adopts E-Learning is likely to have a competitive advantage. However, this requires availability of, and access to, an enabling environment, i.e., the ICT infrastructure.

a) Statement of the Problem

Globally the market registers a massive spike of the adoption of e-learning by 36. 3% as majority of schools migrate to e-learning and massively adopt e-learning technologies in an attempt to keep learning and education alive amid the COVID-19 crisis. (Report Linker, 2020). Arfan et al. (2020) report that in Malaysia, the Government is providing many resources to higher education" and based on the news reports, the

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Malaysian universities, colleges; polytechnics are using Massive Open Online Courses (MOOCs).

Selira et. al, (2015) indicate that though people in sub Saharan Africa have access to the internet, the online education in universities is still not perfect enough and most students prefer traditional systems to e-education. Most of the higher educational institutions in sub Saharan Africa have started exploring e-learning and adopting the system but still lack resources which makes it difficult for them to use the program to its fullest (Selira et al., 2015).

Olema et al. (2020) state that in Uganda many universities have developed and implemented e-learning platforms to meet the increasing demand for higher education. Unfortunately, despite the enormous benefits of e-Learning systems and colossal sums of money spent in installing electronic learning platforms by institutions of higher learning in the sub Saharan Africa in a bid to improve learning and alleviate space challenges due to increasing demand for education (Mtebe, 2015), e-learning systems have failed to pick up to date and virtually no serious activity takes place on the e-learning platforms despite the high maintenance cost incurred to keep them running. Student rate of use has remained as low as 15% (Guma et al., 2019). In addition, student adoption rate seems to decline from university to university, country to county as lamented by the Principal Makerere University Business School, Kampala, Uganda (Olema et al., 2020).

In order to remain competitive in these unprecedented times of COVID-19 and in this generation of corporate universities worldwide, universities in Uganda need to improve their learning culture and realize that E-Learning is shaped by the contexts in which it is adopted. In this environment, technology plays a significant role in the improvement of performance, knowledge sharing, development of student's cognitive skills and support to a broad. Much as outside countries have used E-Learning, African countries still have problems like the culture of both lecturers and students that they still have to come to campus and learn, the low self-discipline of students studying on their own, and the giving of online feedback from lecturers.

The problem that this research tries to address is the low levels of E-Learning adoption in higher institutions of learning in Uganda. The research intends to explore the factors that hinder the adoption of E-Learning and the researcher hypothesizes that the learning culture, attitude to change, and lack of a proper ICT infrastructure may be some of these factors.

b) Objectives of the study

The following were the objectives of the study

i). To examine the effect of learning culture on e-learning adoption in higher institutions of learning in Uganda.

ii). To determine the factors that attribute to the level of e-learning adoption in higher institutions of learning.

c) Research Questions and hypothesis

i. *The study answered the following research questions*

a. What is the effect of learning culture on e-learning adoption in higher institutions of learning in Uganda

b. What are the factors that attribute to the level of e-learning adoption in higher institutions of learning?

ii. *Research hypothesis*

H0: There is no significant relationship between learning culture and e-learning adoption in higher institutions of learning in Uganda.

H1: There is a significant relationship between learning culture and e-learning adoption in higher institutions of learning in Uganda

II. Literature Review

a) Theoretical Review

i. *Models and Theories of Technology Use, Acceptance and Adoption*

Several models proposed in the literature to understand adoption of Information Technology (IT) tally with E-Learning adoption in the education sector. The theories that are commonly used to enumerate adoption approach include the Technology Acceptance Model (TAM) (Davis, 1989; Davis et al., 1989), the Theory of Reasoned Action (TRA) (Fishbein, 1967; Ajzen, 1980; Fishbein & Ajzen, 1975) and the Theory of Planned Behaviour (TPB) (Ajzen, 1980; Pedersen, 2003).

Technology Acceptance Model (TAM) (Davis, 1989; Davis et al., 1989) derived from the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) offers a powerful explanation for user acceptance and usage behavior of information technology. TAM is one of the most influential models widely used in the studies of the determinant of IS/IT acceptance. Many previous studies have adopted and expanded this model which was empirically proven to have high validity (Chau, 1996; Davis, 1989; Mathieson, 1991; Adams et al., 1992; Igbaria, 1992, 1995; Igbaria et al., 1997; Jantan et al., 2001; Ramayah et al., 2002).

TAM theorizes that an individual's behavioral intention to adopt a system is determined by two beliefs, perceived usefulness and perceived ease of use. Perceived usefulness is defined as "the degree to which an individual believes that using a particular system would enhance his or her productivity" while perceived ease of use is defined as " the degree an individual believes that using a particular system would be free of effort" (Davis, 1989). Between these two, perceived ease of use has a direct effect on both perceived usefulness

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and technology usage (Adams et al., 1992; Davis, 1989).

Davis (1989) has also found that there is a relationship between users' beliefs about a technology's usefulness and the attitude and the intention to use the technology. However, perceived usefulness exhibits stronger and more consistent relationship with usage than did other variables reported in the literature. In addition, an individual may adopt a technology if he or she perceives it as convenient, useful and socially desirable even though they do not enjoy using the technology (Saga & Zmud, 1994). Thus, there might be a possibility of a direct relationship between beliefs and intentions.

Subsequent research by Venkatesh and Davis (1996) refined the TAM suggesting that the mediating effect of attitude could be excluded as empirical evidence found that the attitude element did not fully mediate the effect of perceived usefulness on intention to use.

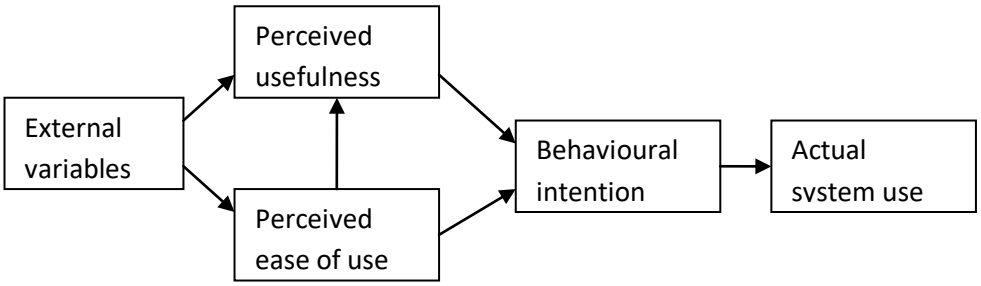

Figure 2.1: Refined Technology Acceptance Model (Venkatesh & Davis, 1996)

From the Refined Technology Acceptance model above, two fundamental measures namely Perceived Usefulness and Perceived Ease of Use were employed and five additional measures were added into TAM, experience (Parthasarathy & Bhattacherjee, 1998; Cho & Kim; 2002), computer anxiety and computer knowledge (Venkatash & Bala, 2008; Rovai and Childress, 2002; Delcourt & Kinzie, 1993), normative pressure (Nysveen et al., 2005), and management support (Chatterjee et al., 2002; Liang et al. 2007), which all have proven to be important factors that influence users behavioural intentions toward adopting E-Learning. However, this research will use, Perceived usefulness, and Management support as attributes of E-Learning Adoption. In Venkatesh and Davis (2000) and Venkatesh et al. (2003) a Unified Theory of Acceptance and Use of Technology (UTAUT) is described. UTAUT combines eight models and theories of technology use, acceptance and adoption. In this research, the researcher zeros in on one of the models, namely the Technology Acceptance Model (TAM) of Davis (1989) that will be used to study E-Learning adoption in Higher Institutions.

ii. *Models and Theories of E-Learning*

a. *Holistic Development Model*

The holistic mode (Collis & Moonen, 2001) is a model of flexible learning establishment. It considers individual factors nested within a complex structure that includes: institution, implementation, pedagogy and technology. This holistic view, as argued by Meredith and Newton (2003), "offers much in each individual factor (institution, implementation, pedagogy and technology), however, some providers fail to aim at the idea it proposes". For example: Institutions look at more flexible learning formats, e.g. developing market share, and may need to provide, an underlying technology for its members to use. It is, however, noted that implementation is not yet mature and development of pedagogical approaches often remain in the domain of individual faculty members.

b. *Institutional Policy and Support*

In the institutional policy and support model (Collis, 1997), institutional strategy and support for E-Learning are said to have a role in the evolving practice with the institution. Collis presents this in form of a bottom-up model that "tolerates the pioneers, supports the volunteers and lets the 1000 flowers bloom prior to policy formulation" (Collis, 1997). This may be looked at as form of a bottom-up management style. The opposite of this, as observed by Meredith and Newton (2003), is the top-down management style where a clear strategic aim is formed to move into the E-Learning arena with the provision of technologies and support to make E-Learning happen.

c. *Pedagogic Evolution Model*

The Pedagogic Evolution Model (Mason, 1998) proposes an "evolution framework for consideration of distance-based online courses which reflects learner interaction with content, other learners, and the extent to which pedagogic re-engineering has taken place" (Meredith & Newton, 2003). Mason presents a mechanism against which to measure and evaluate pedagogic evolution of the learners' engagement in E-Learning environment. Although this model was developed for distance learning, Meredith and Newton (2003) observe that this is a useful framework that seeks

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to establish how the pedagogy has evolved in relation to E-Learning.

b) Learning Culture

Culture is defined as the patterns of thinking, feeling, and acting that people display as mental programs (Hofstede, 1997). Culture affects how a person learns (Smith, et al., 2004).

Geertz (1993) describes culture as a shared, learned, symbolic system of values, beliefs and attitudes that shapes and influences perception and behavior. Learning means different things to different people. Conceptions of learning are explored mainly in terms of "cognitive process", "motivation", and "behavior change" (Dahlin & Watkins, 2000). Previous studies suggest that students' conceptions of learning are derived from and influenced by the individual beliefs about the nature of knowledge and knowledge acquisition (Chan & Elliott, 2004).

Sedibe (2006) in researching the concept "Learning Culture" concludes that "no uniformity exists as to its actual meaning". A literature review reveals a diversity of definitions as to the concept and its attributes. Zulu *et al*. (2004), suggests that the term Learning Culture refers to the attitude of educators and learners towards teaching and learning and the spirit of dedication and commitment in a school which arises through the joint effort of school management, the input of educators, the personal characteristics of learners, factors in the family life of students, school-related factors as well as social factors.

Learning Culture in higher education institutions encompasses all the aspects that impact on students' learning processes and as a consequence, also influence their learning outcomes. The term Learning Culture is limited to the prevalent teaching and learning methods (Jenert et al., 2009) with regard to E-Learning. Learning Culture as a construct encompasses different institutional levels of higher education institutions, ranging from the individual members (i.e. teachers and students) to teaching and learning processes within and outside the classroom to institution-wide strategic aspects which impact on teaching and learning (Euler et al., 2006). The attributes of Learning Culture are given below.

III. Methodology

This section gives a detailed methodology approach, where the design principle is based on the response rates especially, where the whole country is involved like the presidential elections, the referendum over a key decision within the state. The design suitable for this study is analytical giving the details of the results based on the analysis.

The study adopted a simple one spot survey and analytical designs taking a case study of five higher institutions of which two are public Universities and three are private Universities across the country. The study employed both quantitative and qualitative approaches. The study further, adopted a mixed of purposive approach of key informants in higher learning and a simple survey interview method for data collection.

a) Sample Size determination

i. *Methods of data collection, Tools and Techniques*

Data was collected using online mobile survey approaches, interviews and focus group discussions.

ii. *Interview Method*

The different stakeholders of National Council for Higher Education (NCHE), public institutions and private Universities were engaged into simple but comprehensive interactive interviews where their views and experiences were sought regarding the subject under study. In total of 78 interviews in all were conducted in the two categories of higher learning institutions and NCHE which is the higher learning governing body.

iii. *Survey Method*

a. *Groups Discussions*

Focus groups discussions were conducted between the different key respondents such as the university chancellors, heads of IT department, Dean of IT faculties. In total 5 Focus group discussion conducted in the five higher learning institutions with students.

b. *Review of documents and reports*

A number of reports and documentaries including journals, books and periodicals were reviewed with a purpose of linking the problem to the literatures.

b) Data Collection Tools

i. *Interview Guides*

Interview guides were the tools used to collect data from the different categories of respondents. Interviews were administered and free and fair responses were collected from the targeted categories of respondents.

ii. *Questionnaires*

Questionnaires with mainly closed ended questions were administered with a view of collecting specified responses in an easy way. The questionnaires were administered by the researchers and responses recorded as required. These questionnaires were generated by the researchers based on the problem and objectives of the study

iii. *Focus groups discussions Guides*

Focus group discussions with were conducted with selected groups of 5 people from the different learning institutions.

iv. *Tests for validity and reliability of data collection instruments*

The data collection instruments were subjected to validity and reliability analysis tests and the tools were

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proved fit for purpose to collect the required data for the study (For all attributes the results were over and above 0.7).

IV. Data Presentation, Findings and Analysis

Data was analyzed using Statistical Package for social Sciences (SPSS), Microsoft Excel and STATA especially for quantitative data, descriptive statistics and inferential statistics.

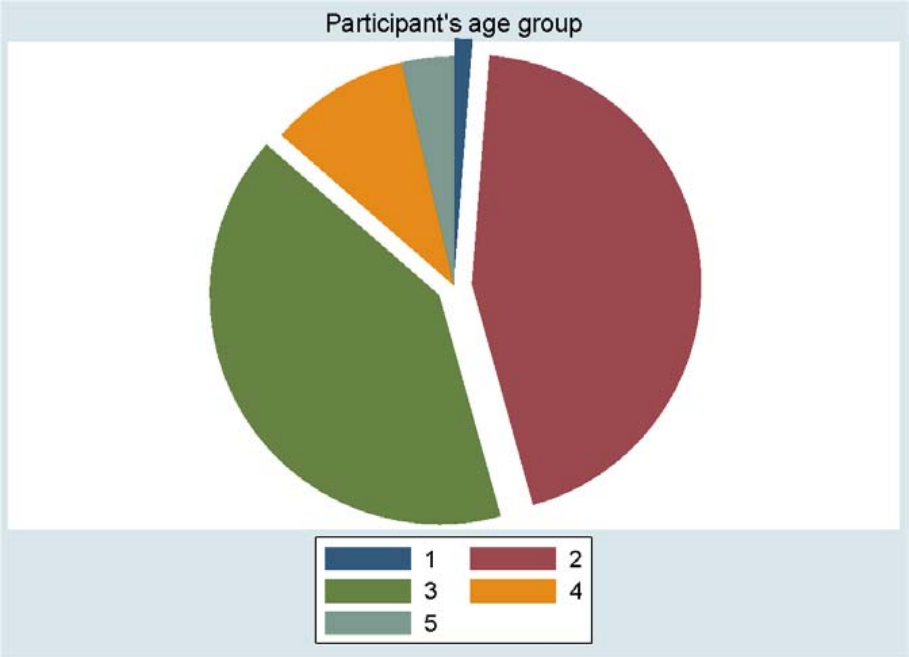

Fig. 01

a) Measurement of Variables

Quality of forecasting and decision making on key indicators as indicated in the tools.

A Likert scale tool of Level of satisfaction in decisions made, with 5 Points was used 1: Strongly Agree; 2: Agree; 3: Not Sure; 4: Disagree; 5: Strongly Disagree

V. Study Findings and Discussions According to the Variables under the Study

a) Interpretation of research findings

The researcher majorly looked at e-learning culture and e-learning adoption in academic institutions across the country. These research variables were categorized into different indicators to provide a meaningful insight to the researcher. 78 respondents that included staff and students from both public and private institutions in Uganda participated in the study over through responding to the researcher's online questionnaire. Of all the respondents 49 of them were male constituting 63 percent and 37 percent were female.

In this study qualitative data was collected using online approach and then analyzed using statistical Package for Social Science (SPSS). From the surveyed participants, it is evident that over 75 percent find it easy to use University e-learning systems despite the 19 percent who are either not sure or disagree that they can use the University e-learning system. The charts below further illustrate this narrative.

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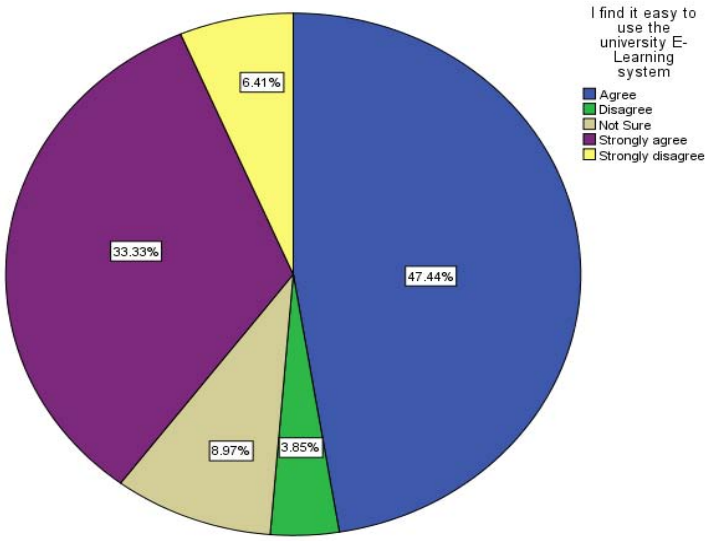

Fig. 02

From the study, the researcher discovered that majority of the respondents aged between 20 years to 39 years preferred acquiring knowledge through face-to-face approach despite their readiness to adopt the e-learning culture.

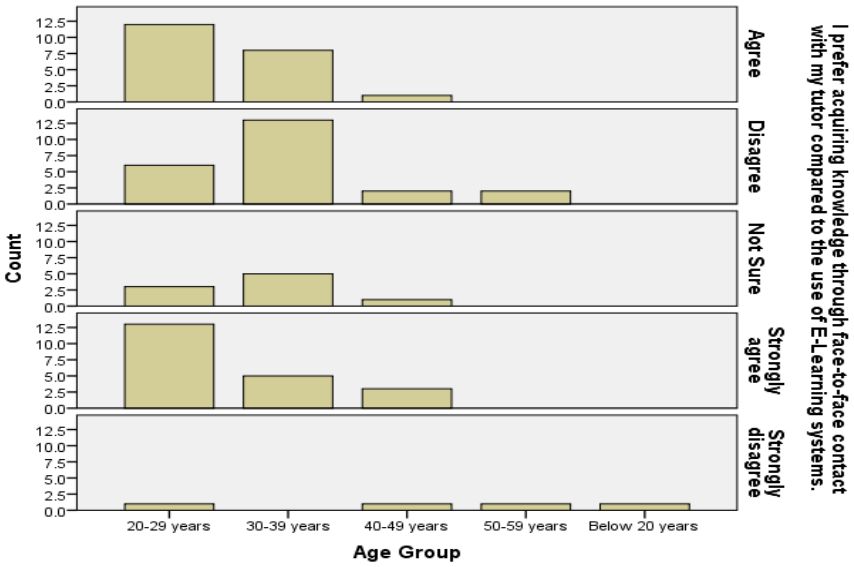

Fig. 03

From the study, the researcher observed that majority of the respondents about 80.77 percent agreed that their institutes were ready for the implementation of e-learning systems. From the analysis, it is also noted that majority of those who agreed, believe that e-learning system are easy to implement and this was statistically confirmed as indicated in the table below.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.401[a]	4	.000
Likelihood Ratio	17.604	4	.001
N of Valid Cases	78		

a. *6 cells (60.0%) have expected count less than 5. The minimum expected count is .36.*

Fig. 04

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The survey also indicated that age categories below 40 but above 20 years agreed that their academic institutions were ready for the implementation of e-learning system, however 66 respondents believed that their institution lacked the conducive environment that would enable them set and realize their set goals in regard to the adoption of electronic system.

Of all the participants, 90 percent of the male respondents below 40 years preferred acquiring knowledge through face-to-face contact with a tutor compared to the use of E-Learning systems vis-à-vis 76 percent female respondents in the same age bracket with the same preference.

b) Relationship between elearning culture and elearning adoption.

The researcher found out that even though training that aids the adoption of E-learning is availed, participants believed that goals are better set in the formal learning mode (face – to – face) than in the E-learning environment. This assertion was proved by the chi-square test that showed a p-value of 0.093 which was above 5 percent threshold and thus the researcher failed to accept the null hypothesis and concluded that there was no significant relationship between the variables.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.829[a]	16	.093
Likelihood Ratio	22.170	16	.138
N of Valid Cases	78		

a. *20 cells (80.0%) have expected count less than 5. The minimum expected count is .36.*

Fig. 05

c) Qualitative findings according to interviews and focus groups discussions

According to the personal interviews with the different categories of respondents about the future of elearning adoption basing on levels of satisfaction, the following were observed.

i. *Views by Heads of Department, management and Staff*

This category pointed out their readiness to adopt the elearning management system in their respective higher learning institutions amidst negative perception by other stakeholders especially the students.

In general, the respondents confirmed that, elearning adoption is likely to take off successfully despite the various challenges though with diverging assumptions.

ii. *Levels of Satisfactions: Views by Respondents*

On the issues of elearning adoption systems in higher learning institutions, the different views were gathered.

Majority of the respondents (fig:03) preferred to acquire knowledge through the traditional face-to-face approach with the tutor before them.

A significant number of respondents believed that their academic institutions were ready to implement the elearning management system despite the funding and perspective challenges.

VI. Conclusions and Recommendations

Learning Culture in higher education institutions encompasses all the aspects that impact on students' learning processes and as a consequence, also influence their learning outcomes. Therefore, basing on our findings for this learning to take place a conducive environment is required. We believe that it elearning is a convenient approach for learning though with high level of self-motivation from the learners.

Basing on the employers' requirement of employees who are able to perform under minimum supervision, it is our professional belief that elearning approach is a better way of preparing students to execute their roles without motivation from other colleagues.

a) Recommendations

From the study findings, I wish to recommend the following:

1) For eLearning adoption to be implemented in higher learning institution, more aware sensitization is needed to charge the stakeholder's mindset toward online learning.
2) University and other higher learning top management should pay keen interest on elearning approach and appropriate a reasonable budget for its implementation and adoption.
3) Governments and education ministry should also appropriate some budget to support elearning adoption in higher learning institution.
4) Higher learning institutions should always a contingency fund to support elearning particularly in challenging situation like during the ongoing COVID19 pandemic.

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Article Deficiencies

Article Cited by the authors

1. Arfan, S., Rohail, H., Adejare, Y.A., Arsalan, H., & Rab, N. L. (2020). Effects of COVID-19 in E-learning on higher education institution students: the group comparison between male and female.
2. Kasozi, A. B. K. (2003). University education in Uganda; Challenge and Opportunities for Reform. Kampala: Fountain Publisher.
3. Mtebe, J. S. (2015). Learning Management System success: Increasing Learning Management System usage in higher education in sub-Saharan Africa.
4. Olema, H., Sambo, M., & Clive, T. (2020). Students" Adoption of E-Learning Platforms: A Comparative Study in Uganda and Nigeria.
5. Owoeye. J. S., & Oyebade. S. A. (2009) African Higher Education Review: *Journal of Higher Education Research and Policy Network (HERPNET) Vol.2, 2009.*
6. ReportLinker, (2020). Global E-Learning industry. Retrieved From: Global E-Learning Industry (globenewswire.com)
7. Selira, K., Mustafa, I., & Hasan, K. (2015). The Growing of Online Education in Sub Saharan Africa: Case Study Ghana.

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Family Cohesion, Distress Disclosure, Retirement Adjustment, Social Support, and Mental Health Status of Retirees in Nigeria

By Olatomide, Onijuni Olufemi, Yusuf Olayinka Shogbesan & Subair, S. 'Tayo
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Abstract- The study investigated individual, and joint contribution effect of family cohesion, distress disclosure, retirement adjustment, and social support to the mental health status of retirees in Ondo State. Survey research design was used in the study. The population comprises all teacher retirees from the public primary and secondary schools in the State. A sample of n = 115 was purposively drawn from retirees in two Local Government Areas in the State. Two hypotheses guided the study. The results showed that family cohesion has a positive significant effect (Beta weight = 0.621, R^2 =0.386, F-value = 71.636, p-value = 0.000< 0.05), while distress disclosure has a negative significant effect (Beta weight = -0.221, R^2 =0.049, F-value = 5.86, p-value = 0.017< 0.05) on the mental health status of the retirees. Further results showed that retirement adjustment has a positive significant effect (Beta weight = 0.418, R^2 =0.175, F-value = 24.126, p-value = 0.000< 0.05) while social support has a non-significant effect (Beta weight = 0.022, R^2 =0.000, F-value = 0.054, p-value = 0.817> 0.05) on the mental health status of the respondents.

Keywords: mental health, family cohesion, distress disclosure, retirement adjustment, social support, retirees.

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Family Cohesion, Distress Disclosure, Retirement Adjustment, Social Support, and Mental Health Status of Retirees in Nigeria

Olatomide, Onijuni Olufemi [α], Yusuf Olayinka Shogbesan [σ] & Subair, S. 'Tayo [ρ]

Abstract- The study investigated individual, and joint contribution effect of family cohesion, distress disclosure, retirement adjustment, and social support to the mental health status of retirees in Ondo State. Survey research design was used in the study. The population comprises all teacher retirees from the public primary and secondary schools in the State. A sample of n = 115 was purposively drawn from retirees in two Local Government Areas in the State. Two hypotheses guided the study. The results showed that family cohesion has a positive significant effect (Beta weight = 0.621, R^2 =0.386, F-value = 71.636, p-value = 0.000< 0.05), while distress disclosure has a negative significant effect (Beta weight = -0.221, R^2 =0.049, F-value = 5.86, p-value = 0.017< 0.05) on the mental health status of the retirees. Further results showed that retirement adjustment has a positive significant effect (Beta weight = 0.418, R^2 =0.175, F-value = 24.126, p-value = 0.000< 0.05) while social support has a non-significant effect (Beta weight = 0.022, R^2 =0.000, F-value = 0.054, p-value = 0.817> 0.05) on the mental health status of the respondents. Additional results showed existence of a significant joint effects of family cohesion, distress disclosure, retirement adjustment, and social support (R = 0.652, R^2 =0.426, F-value = 20.565, p-value = 0.000< 0.05) on the mental health status of the retirees. It is recommended, among others, that during pre-retirement and post-retirement phases, administrators and retirement counsellors should deservedly emphasize the roles of family cohesion, distress disclosure, retirement adjustment, and social support to retirees' positive mental health.

Keywords: mental health, family cohesion, distress disclosure, retirement adjustment, social support, retirees.

I. Introduction

Mental health basically explains individual's ability to think rationally and logically in order to cope with life transitions, traumas, stress, and losses in individual's life trajectories thus leading to emotional stability and growth (Mental Health Education Resource Centre, [MHERC], 2020). Traditionally, mental health has been described to mean absence of psychopathology, wherein people were believed to be either mentally healthy or mentally ill, but it is today acknowledged that absence of psychopathology does not translate into presence of positive mental health (Lukat, Margrat, Lutz, Van der Veld, & Becker, 2016). Positive Mental Health (PMH) is the presence of main features of social, emotional, and psychological wellbeing (Lukat *et al*., 2016). Thus, the supportive role of PMH in assisting people to navigate critical stages of life trajectories, especially for retirees, should be a concern to administrators, personnel managers, career counsellors and gerontologists.

Retirement is the terminal phase in a person's occupational life cycle that shows the period following career employment in which occupational tasks are discarded (Atchley, 1976). More recently, Olatomide (2020a) explained retirement as the cessation of work by a worker from the work that has occupied the individual for quite some time, due to organisational or personal reasons, whether or not retirement entitlements would follow. Similarly, Subair, Olusegun and Aliyu (2021) viewed retirement as a necessary end which could either be exciting, delightful, pleasurable, thrilling, something to look forward to or time of psychological stress and boredom. They further explained this to be a period of detachment from primary activity in business, industry, or active service as full-time employee. However, empirical studies show contrasting findings on the exact nature of relationship between retirement and mental health. Scholars such as Nuttman-Shwartz (2004) as well as Manty, Kouvonen, Lallukka, Lahti, Lahelme, and Rahkonen (2018) established positive relationship between retirement and mental health, while Hyde, Ferrie, Higgs, Mein, and Nazroo (2004), including Dave, Rashad, and Spasjevic (2008) found negative relationship. Much earlier, in-between the two extremes, Yeung (2013) could not establish any relationship. Thus, investigating the effect of retirement on physical and mental health outcomes among American retirees aged 50 and 75, Dave *et al*, (2008) established that complete retirement yields increase in number of mobility difficulties, rise in the number of difficulties in daily activities, rise in the number of illnesses, and increase in mental health problems, such as depression, among other findings. Relatedly, Picchio and Ours (2020) investigated how retirement could affect mental health among the Dutch and found that at retirement, the

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mental health rises significantly for men and their spouse whereas when women retire, their retirement has less noticeable effect on the women and their spouse's mental health; and in contrast, single men who retired demonstrated decrease in general mental health wellness.

Generally, in Nigeria, 20% to 30% of the population are assumed to suffer mental disorders (Onyemelukwe, 2016), which percentage is huge considering that Nigeria has just over 200 million populations, and misconceptions about mental health issues are unabatedly high even though the attention accorded it is poor (Suleiman, 2017). Furthermore, Eje, Igbokwu, and Onoja (2020) investigated the state of depression, anxiety, and stress among retirees in Kogi State and found that the retirees' level of depression, anxiety, and stress was severe. In that connection, many constructs might predict the mental health status of retirees. One of these is family cohesion, described by Weischman, Rosales, Kymalainen, and Armesto (2005) as the degree of love, commitment, assistance and support shared among family members. Weischman *et al*., (2005) found that patients' perception of their family as cohesive, supportive, and unified is associated with higher emotional wellbeing for patients and their family members in managing schizophrenia, and also associated with reduced psychiatric symptoms (presence of positive mental health) in patients.

Aside from family cohesion, distress disclosure may also predict peoples' mental health status. Distress disclosure describes an individual's disposition to talk about their problems and distressing moments to others (Kahn & Hessling, 2001). In a study, Kahn and Hessling found that frequent concealment (rare self-disclosure) of distress and constant self-disclosure (rare concealment) of distress has been found to predict changes in self-esteem, perceived social support, and life satisfaction.

Besides distress disclosure, retirement adjustment might predict a retiree's mental health status. Retirement adjustment explains the level to which retirees harness available resources and opportunities provided by post-work life to meet their various competing daily needs in order to attain retirement happiness, fulfilment, and wellness (Olatomide, 2017). Fleischmann, Xue, and Head (2020) investigated how retirement might influence mental health for those transiting into retirement and after their retirement and found that retirement has improvement in the mental health status of retirees. Specifically, they found that retirement brings about changes in mental health as mental health of people slightly improves each year prior to retirement while at retirement and up to three years thereafter, people experience a sharp increase in mental health every year, but following the third year, mental health slightly but insignificantly wanes each year.

Similarly, the degree of social support received by an individual may influence their mental health status. Social support expresses the nature and standard of social relationship in the form of perceived existing help or support practically received from significant others (Schwarzer & Knoll, 2007), which could be instrumental or tangible (such as goods, solve a problem), informational (giving of advice), as well as emotional (in form of emphatic listening, offering assurances) (Schwarzer, Knoll, & Rieckmann, 2004). Researchers such as Camara and Padilla (2017) and Isubale, Stein, Webster, and Wadman (2019) found that social support is positively related to the mental health of individuals and their quality of life by assisting them to feel valued, while Bukhari and Afzal (2017) established that absence of social support shows significant negative relationship between social support and psychological disorders such as stress and depression. Lending credence to this is Subair, Olusegun and Aliyu (2021) who found poor safety nets as major contributions to retirees' painful experiences after retirement among teachers in Nigerian schools. To them, safety nets in the context of their empirical study implies any form of social package from government or through self-efforts which could enhance living standards of retirees.

Most retirees in Nigeria are relatively old, having mandatorily retired at the age of 60, and according to Gureje, Kola, Afolabi, and Olley (2008), old age naturally produces health challenges and reduced functional capacity which negatively affect their wellbeing. In addition, the emergence of COVID-19 brought uncommon hardship on the citizenry, including the retirees. In a study, Olatomide (2020b) found that the COVID-19 pandemic brought economic hardship on the finances of retirees in Ondo State such as cut in their monthly pension by Ondo State Government, increased domestic dependants, and tenants' inability to pay their rents to retiree landlords, among other findings. There is the need therefore, to investigate the mental health status of retirees in the country, as well as how family cohesion, distress disclosure, retirement adjustment, and social support might influence their mental health status. In that connection, the objectives of the study are to investigate the individual, and joint influence of family cohesion, distress disclosure, retirement adjustment, and social support on the prediction of the mental health status of the participants.

a) *Research Hypotheses*

Hypothesis One: There is no significant composite effect of each of family cohesion, distress disclosure, retirement adjustment, and social support on the mental health status of retirees in Ondo State.

Hypothesis Two: A combination of family cohesion, distress disclosure, retirement adjustment, and social support will not significantly predict the mental health status of retirees in Ondo State.

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II. Methodology

The research design used for the study is descriptive survey. The population consists of all retirees from public primary and secondary schools in Ondo State, Nigeria. The population of the participants could not be ascertained arising from irregular attendance at meetings, and death of members. The sample size was 116 selected through multi-stage sampling technique. In the first stage, convenience sampling was used to select two Local Government Areas from the 18 Local Government Areas in the State. In the second stage, purposive sampling was used to select two meeting venues (one primary and one secondary) from each of the two Local Government Areas. While intact sampling was used to select the attendees at the meetings, many other copies of the questionnaire were dropped with the retirees' executives to be administered on their members.

a) Measures

i. *The Positive Mental Health Scale*

The Positive Mental Health Scale (PMH-scale) was developed by Lukat, Margrat, Lutz, Van der Veld, and Becker (2016). The PMH-scale is a short, unidimensional 9-item self-report scale that measures the mental health in a variety of groups – students, patients, population with mental health problems, and those without mental health problems. The items are rated on a Likert-type scale ranging from 1 to 4. Two examples of the items on the scale read: "I manage well to fulfil my needs", and "Much of what I do brings me joy". Higher scores on the scale shows a greater level of positive mental health while lower scores convey lower degree of positive mental health. The overall internal consistency of the groups yielded Cronbach's alpha of 0.93. Finally, the unidimensionality structure of the scale indicates that it is a good measure of a single concept – positive mental health. In the present study, the response options were modified to range from Strongly Disagree (1) to Strongly Agree (4). The modification was needful to align the wordings in the options with other scales used in the study. In the modified scale, the Cronbach's alpha was 0.85 for the entire scale.

ii. *Family Cohesion Scale*

The Family Cohesion Scale is a subset of Family Environment Scale (FES) developed by Moos and Moos (1981). The FES is a 90-item True-False questionnaire that measures family members' perception of their family environment. The Family Cohesion Scale (FCS) was adapted and used in this study to investigate family unity, commitment, support and help offered by family members. The original subscale has 9 items, rated on True and False response options. Two examples of the items on the subscale are "In our family we really help and support each other", and "In our family there is a feeling of togetherness". Higher scores on the subscale shows greater family cohesion while lower scores indicate poor family cohesion. The overall internal reliability consistency of the subscale yielded a Cronbach's alpha of 0.78. Weischman, Rosales, Kymalainen, and Armesto (2005) used similar scale and got a Cronbach value of 0.63, while Fok, Allen, Henry, and Team (2013) employed the same subscale and got a Cronbach's value of 0.83 in their studies. In the present study, some modifications were made on the subscale. First, the items were increased from 9 to 15 to reflect some peculiar features of family cohesion known among the retirees' families but not covered in the original subscale. Second, the response options were modified from True-False to a 4-point Likert response options ranging from Strongly Disagree (1) to Strongly Agree (4). In the modified scale, the Cronbach's alpha was 0.92 for the entire scale.

iii. *Distress Disclosure Index*

The Distress Disclosure Index (DDI) was developed by Kahn and Hessling (2001). The DDI is a 12-item questionnaire that measures the individual's disposition to disclose their distressing information to significant others. The items are rated on a 5-point Likert-type scale ranging from Strongly Agree (5) to Strongly Disagree (1). Two examples of the items on the scale read: "When I feel upset, I usually confide in my friends", and "If I have a bad day, the last thing I want to do is talk about it". Higher scores on the scale shows a greater disposition to disclose stress to others while lower scores indicate unwillingness to reveal experience of stress. The Cronbach's alpha of the scale was 0.92 at Time 1 and 0.95 at Time 2 of use. In the present study, the response options were modified to range from Strongly Disagree (1) to Strongly Agree (4). The modification was needful to remove the undecidedness in the original scale. In the modified scale, the Cronbach's alpha was 0.81 for the entire scale.

iv. *Retirement Adjustment Scale*

The Retirement Adjustment Scale (RAS) was developed by Adeyemo and Olatomide (2017). The RAS is a 21-item questionnaire that measures the level to which retirees are experiencing retirement wellness. The items are rated on a 4-point Likert-type scale ranging from Strongly Agree (4) to Strongly Disagree (1). Two examples of the items on the scale read: "My retirement entitlements are paid as and when due", and "I feel happy that I ever worked in civil/public service". Higher scores on the scale shows a higher level of retirement adjustment while lower scores are indications of poor adjustment to retirement. The overall internal consistency of the scale produced a Cronbach value of 0.78. In the present study, the entire scale was adopted for use, and the Cronbach alpha of 0.58 was obtained.

v. *Multidimensional Scale of Perceived Social Support*

The Multidimensional Scale of Perceived Social Support (MSPSS) was developed by Zimet, Dahlem,

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Zimet, and Farley (1988). The scale is a 12-item questionnaire that measures the level of support received from significant others. The items are rated on a 7-point Likert-type scale ranging from Very Strongly Disagree (1) to Very Strongly Agree (7). The scale comprises of three factors of support, namely support from family, support from friends, and support from others. An example of item measuring support from family is "I get the emotional help and support I need from my family", one on friends reads "I can talk about my problems with my friends", while an example of item measuring support from others indicates "There is a special person in my life who cares about my feelings". Higher scores on the scale shows a greater level of received support from significant others while lower scores are an indication of lower support from significant others. The overall internal consistency of the scale was 0.92. The scale as recently used and a Cronbach's alpha of 0.71 obtained in the present study, the response options were modified to range from Strongly Disagree (1) to Strongly Agree (4). The modification was to erase what appeared confusing to the respondents after the initial pilot testing on a fraction of the respondents. In the modified scale, the Cronbach's alpha was .885 for the entire scale. Prior to meeting the retirees in their meeting venues, the researchers had privately spoken with the Chairman or Secretary on phone, asking for their permission to administer copies of questionnaire on their members, and when to meet them. Having gained their approval, the researchers formally met them at the meeting venues. During face-to-face interactions with the retirees, the retirees were intimated with the purpose of the study, sought and obtained their consent to participate in the study. Having sampled the retirees present at the meetings, the executives collected some copies of the questionnaire for their members who were absent, but gave a later date for the researchers to collect the filled-out questionnaires. It took 4 months to collect the data- February to May, 2021. The data collected were analyzed using both descriptive and inferential statistics.

III. Results

Hypothesis One: There is no significant interaction effect of family cohesion, distress disclosure, retirement adjustment, and social support on the mental health status of retirees. To test the hypothesis, simple regression analysis was used. The results are presented in Table 1.

Table 1: Simple regression analysis showing the interaction effect of family cohesion, distress disclosure, retirement adjustment, social support on the mental health status of retirees

R=0.621 R^2 =0.386 Adj.R^2= 0.381 F-Value= 71.636 P-Value= 0.000	Unstandardised Coefficients		Standardised Coefficients	T	p-value
	B	Std. Error	Beta		
(Constant)	8.818	2.314		3.810	.000
Family cohesion	.436	.052	.621	8.464	.000

R=0.221 R^2 =0.049 Adj.R^2= 0.491 F-Value= 5.86 P-Value= 0.017	Unstandardised Coefficients		Standardised Coefficients	T	p-value
	B	Std. Error	Beta		
(Constant)	35.216	3.005		11.720	.000
Distress disclosure	-.229	.094	-.221	-2.421	.017

R=0.418 R^2 =0.175 Adj.R^2= 0.167 F-Value= 24.126 P-Value= 0.000	Unstandardised Coefficients		Standardised Coefficients	T	p-value
	B	Std. Error	Beta		
(Constant)	12.480	3.211		3.886	.000
Retirement adjustment	.271	.055	.418	4.912	.000

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R=0.022 R^2 =0.000 Adj.R^2= -0.008 F-Value= 0.054 P-Value= 0.817	Unstandardised Coefficients		Standardised Coefficients	T	p-value
	B	Std. Error	Beta		
(Constant)	27.282	3.393		8.041	.000
Social support	.023	.097	.022	.233	.817

a. *Dependent Variable: Mental health status of retirees*

From Table 1, the results of the simple regression show that family cohesion has a positive significant effect on mental health status of retirees (Beta weight = 0.621, R^2 =0.386, F-value = 71.636, p-value = 0.000< 0.05). There also exists a negative significant effect of distress disclosure on mental health status of retirees (Beta weight = -0.221, R^2 =0.049, F-value = 5.86, p-value = 0.017< 0.05). Furthermore, the results show that retirement adjustment has a positive significant effect on retirees' mental health status (Beta weight = 0.418, R^2 =0.175, F-value = 24.126, p-value = 0.000< 0.05). Moreover, there exists a non-significant effect of social support on mental health status of retirees (Beta weight = 0.022, R^2 =0.000, F-value = 0.054, p-value = 0.817> 0.05). Hence It can thus be concluded that there exists a positive independent interaction effect of family cohesion and retirement adjustment on the mental health status of retirees while a negative independent interaction effect existed between distress disclosure and mental health status of retirees. However, there was not significant interaction effect of social support on mental health status of retirees.

Hypothesis Two: A combination of family cohesion, distress disclosure, retirement adjustment, and social support will not significantly predict the mental health status of retirees. To test the hypothesis, multiple regression analysis was used. The results are presented in Table 1.

Table 2: Multiple regression analysis showing the combination effect of family cohesion, distress disclosure, retirement adjustment, social support on the mental health status of retirees.

R=0.652 R^2 =0.426 Adj.R^2= 0.405 F-Value= 20.565 P-Value= 0.000	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	12.022	4.250		2.828	.006
Family cohesion	.397	.061	.566	6.518	.000*
Distress disclosure	-.217	.087	-.209	-2.480	.015*
Retirement adjustment	.040	.057	.062	.696	.488
Social support	.087	.086	.083	1.004	.318

a. *Dependent Variable: Mental health status of retirees * Significant*

From the results of the multiple regression in Table 2, there exists a significant combination effect of family cohesion, distress disclosure, retirement adjustment, and social support on mental health status of retirees (R = 0.652, R^2 =0.426, F-value = 20.565, p-value = 0.000< 0.05). In the model, however, family cohesion contributed positively and significantly (Beta weight = 0.566, p-value = 0.000< 0.05) while distress disclosure contributed negatively and significantly (Beta weight = -0.209, p-value = 0.015< 0.05) to mental health status of the retirees. Retirement adjustment (Beta weight = 0.062, p-value = 0.488> 0.05) and social support (Beta weight = 0.083, p-value = 0.318> 0.05), however, do not have combined significant contribution effect on the mental health status of retirees. It can thus be concluded that there exists a significant combination effect of family cohesion, distress disclosure, retirement adjustment, and social support on mental health status of retirees, with family cohesion contributing positively while distress disclosure contributed negatively in the predictive model.

IV. Discussion of Findings

Hypothesis one asserted that there would be no significant interaction effect of each of family cohesion, distress disclosure, retirement adjustment, and social support on the mental health status of retirees in Ondo State. The findings reveal a positive independent interaction effect of distress disclosure, family cohesion, and retirement adjustment relatively contributing the highest, higher, and least influence to retirees' mental health, whereas social support shows no significant

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individual interaction effect on the retiree's mental health. The contributory leading role being played by distress disclosure to the retirees' mental health makes an interesting commonsense finding. For, retirees are likely to reveal whatever hardship and worries currently afflicting them to significant others, knowing that they are elderly and somewhat fragile. In fact, there is a saying among the elderly in the study area that "*Bo mi mora kin pa e, tu asiri mi kin fi e sile ni oruko aisan*", meaning "*conceal me and let me kill you, reveal me and let me leave you is the name for sickness*". Perhaps, that must extend to psychological worries and emotional distress among the elderly. Thus, the disposition to voluntarily inform others about their pressing worries and discomfort is a great antidote to negative or poor mental health on the one hand, and a positive mental health booster on the other hand to the retirees.

Next to distress disclosure is the role of family cohesion, in the contribution to the positive mental health of the retirees. The finding is also interestingly expected. Notably, the family can be considered as the most significant source of happiness to individuals with supportive homes. In fact, Elaine (2004) in Olatomide, Shobola, and Omoyemiju (2012) considers meeting the economic needs of family members, provision of affective and emotional needs of members, socialisation, to list a few, as the common functions of a family. Relatedly, where a retiree had practically involved their family members to actively partake in their retirement goals and actions, they will likely be supportive at retirement, and that may enhance their cohesiveness in the family, which ultimately could positively contribute to the retirees' mental health.

Similarly, the finding that established a positive contribution of retirement adjustment is heartwarming because the extent to which the retirees have been able to maximise available opportunities and resources to enhance their retirement wellbeing should be positively related to their mental health status. The finding is in agreement with the finding of Fleischman *et al*., (2020) who established a positive association between retirement and mental health. The finding is also similar to the finding of Olatomide (2020c) who established a higher contribution of psychological wellbeing to retirees' retirement adjustment (with social support and pre-retirement guidance contributing the highest and least respectively).

The finding that shows absence of significant individual interaction effect of social support on mental health status of the retirees appears contrary to general expectations, judging that support from significant others garnered by retirees should positively influence their mental health status. However, considering that distress disclosure, family cohesion, and retirement adjustment have each contributed to their mental health, their individual contribution may have because so colossal to make the significant contribution of social support largely unnoticed.

Research hypothesis two stipulated that a joint influence of family cohesion, distress disclosure, retirement adjustment, and social support will not significantly predict the mental health status of retirees in the State under investigation. The hypothesis was not supported. Rather, the findings show existence of a significant combination effect of family cohesion, distress disclosure, retirement adjustment, and social support on retirees' mental health status. Thus, when linked to the earlier findings on the individual contribution of family cohesion, distress disclosure, retirement adjustment, and social support on retirees' mental health status, even though retirement adjustment contributed the least influence while social support had no significant interaction effect, this finding has shown that a combination of family cohesion, distress disclosure, retirement adjustment, and social support could positively impactfully predict retirees' mental health status.

V. Conclusion and Recommendations

From the findings of the study, it can be concluded that retirees' positive mental health could be potentially bolstered by a combination of family cohesion, distress disclosure, retirement adjustment, and social support. On the basis of the findings and the conclusion, it is recommended that during pre-retirement orientation and at the time of transition into retirement, career and retirement counsellors should stress the indispensable role of a united and supportive home, emphasize the relevance of exhibiting positive disposition toward revealing ongoing worries, and discomforts, the need to maximize post-retirement opportunities and resources toward retirement wellbeing, as well as skillfully harnessing support from friends, colleagues, and other significant others - to retirees' positive mental health. These can help them in no small measure to take decisions based on reason rather than emotions in order to successfully manage life traumas and stresses, thus enhancing their emotional growth and stability. Similarly, in the presence or absence of comprehensive face-to-face interviews with retirees, administrators and retirement counsellors should employ mental health screening tools to assist them in identifying retirees with mental health disorders with a view to offering immediate intervention upon which referral could follow, where necessary.

References Références Referencias

1. Adeyemo, E. O., & Olatomide, O. O. (2017). Validation of Retirement Adjustment Scale for retired teachers of secondary schools in Osun State,

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Nigeria. *International Journal of Education and Research, 5*(8), 209-220.
2. Atchley, R. C. (1976). *The sociology of retirement*. New York: Schenkman Publishing Company.
3. Bukhari, S. R., & Afzal, F. (2017). Perceived social support predicts psychological problems among university students. *The International Journal of Indian Psychology, 4*(2), 2349-3429.
4. Camara, M., & Padilla, G. B. (2017). The role of social support in adolescents: Are you helping me or stressing me out? *International Journal of Adolescence and Youth, 22*(2), 123-136.
5. Dave, D., Rashad, I., & Spasojevic, J. (2008). The effects of retirement on physical and mental health outcomes. *Southern Economic Journal 75*(2), 497-523. Accessed from https//www.jstor.org/stable/27751397.
6. Ejeh, V. J., Igbokwe, C. C., & Onoja, H. N. (2020). Determination of depression, anxiety and stress among retirees in Kogi State and preventive strategies. *International Journal of Education, Learning and Development, 8*(3), 62-74.
7. Fleischmann, M, Hue, B., & Head, J. (2020). Mental health before and after retirement – Assessing the relevance of psychosocial working conditions: The Whitehall II prospective study of British civil servants. *Journal of Gerontology B Psychological Science Social Sciences, 75*(2), 403-413.
8. Fok, C. C. T., Allen, J., Henry, D., & Team, P. A. (2013). The Brief Family Relationship Scale: A brief measure of the relationship dimension in family functioning. *National Institute of Health*. Accessed from https://www.researchgate.net/publication/51799233.
9. Gureje, O., Kola, L., Afolabi, E., & Olley, B. O. (2008). Determinants of the quality of life of elderly Nigerians: Results from the Ibadan study of ageing. *African Journal of Medicine and Medical Sciences, 37*(3), 239-247.
10. Hyde, M., Ferrie, J., Higgs, P., Mein, G., & Nazroo, J. (2004). The effect of pre-retirement factors and retirement route on circumstances in retirement: Findings from the Whitehall II study. *Ageing and Society, 24*, 279-296. doi: 10.1017/SO144686X0300 1624.
11. Isubale, M. M., Stein, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth, 24*(4), 484-496.
12. Kahn, J. H., & Hessling, R. M. (2001). Measuring the tendency to conceal versus disclose psychological distress. *Journal of Social and Clinical Psychology, 20*(1), 41-65. doi: 10.1521/isep.20.1.41.22254.
13. Lukat, J., Margraf, J., Lutz, R., Van de Veld, W. M. (2016). Psychometric properties of the Positive Mental Health scale (PMH-scale). *BMC Psychology*, 4:8. doi. 10.1186/s40359-016-0111-x
14. Manty, M., Kouvonen, A., Lallukka, T., Lahti, J., Lahelma, E., & Rahkonen, O. (2018). Changes in physical and mental health functioning during retirement transition: A register-linkage follow-up study. *European Journal of Public Health, 28*, 805-809. doi: 10.1093/eurpub/cky013.
15. McLean, J. (2020). *Why mental health education in schools is so important?* Accessed from https://the doctorweighsin.com/mental-health-education-schools.
16. Moos, R. H., & Moos, B. S. (1981). *Family Environment Scale manual* (2nd ed.). Palo Alto (CA): Consulting Psychologist Press.
17. Nuttman-Shwartz, O. (2004). Like a high wave: Adjustment to retirement. *The Gerontologist, 44*, 229-236. doi: 10.1093/geront/44.2.229.
18. Olatomide, O. O., Shobola, A. A., & Omoyemiju, M. A. (2012). Attitude of retiring headmasters and assistant headmasters towards family involvement in pre-retirement preparation in Ondo State, Nigeria. *World Journal of Education, 2*(2), 41-48.
19. Olatomide, O. O. (2017). Impacts of pre-retirement guidance and family involvement on retirement adjustment of retirees in Nigeria. *Bulgarian Journal of Science and Education Policy, 11*(2), 246-266.
20. Olatomide, O. O. (2020a). Retirement preparedness of workers as perceived by university lecturers in Nigeria. *Journal of Education, Psychology and Research, 1*(2), 50-65.
21. Olatomide, O. O. (2020b). Psycho-economic adjustment strategies of retirees during the COVID-19 pandemic in Ondo State, Nigeria. *Journal of Counselling and School Psychology, 3*(1), 53- 62.
22. Olatomide, O. O. (2020c). What is the relationship among pre-retirement guidance, social support and psychological wellbeing on retirement adjustment of teacher retirees in Osun State? *Inkanyiso, Journal of Humanity and Social Sciences, 12*(1), 99-109.
23. Onyemelukwe, C. (2016). Stigma and mental health in Nigeria: Suggestions for law reform. *Journal of Law Policy Glob*, 55, 63-68.
24. Picchio, M., & Ours, J. V. (2020). *How retirement can affect mental health: Lessons from the Netherlands*. Accessed from https//voxeu.org/article/how-retirement-can-affect-mental-health.
25. Schwarzer, R., & Knoll, N. (2007). Functional roles of social support within the stress and coping process: A theoretical and empirical overview. *International Journal of Psychology, 42*(4), 343-252.
26. Schwarzer, R., Knoll, N., & Rieckmann, N. (2004). Social support. In A. Kaptein & J. Weinman (Eds.), *Health psychology*, (pp. 158-182). Oxford, UK: Blackwell.

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27. Subair, S. 'Tayo, Olusegun Oluwadamilola C. & Aliyu, M. Olasunkanmi (2021). Safety nets and retirement preparations of teachers in Nigerian schools. *International Journal of Humanities, Social Sciences and Education (IJHSSE)*, 8(10), 113 –122.
28. Suleiman, D. E. (2017). Mental health disorders in Nigeria: A highly neglected disease. *Annals of Nigeria Medicine,* 10, 47-48. Accessed from www. anmjournal.com.
29. Weisma, A., Rosales, M. A., Kymalainen, M. A., & Armesto, M. A. (2005). Ethnicity, family cohesion, religiosity, and General Emotional Distress in patients with schizophrenia and their relatives. *The Journal of Nervous and Mental Disease, 193*(6), 359-368.
30. Yeung, D. Y. (2013). Is pre-retirement planning always good? An exploratory study of retirement adjustment among Hong Kong Chinese retirees. *Aging & Mental Health, 17*, 386-396. doi: 10.1080/ 13607863.2012.732036.
31. Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*, 30-41.

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Tips for writing a good quality Social Science Research Paper

Techniques for writing a good quality homan social science research paper:

1. Choosing the topic: In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

2. Think like evaluators: If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

3. Ask your guides: If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

4. Use of computer is recommended: As you are doing research in the field of homan social science then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

5. Use the internet for help: An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.



6. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

7. Revise what you wrote: When you write anything, always read it, summarize it, and then finalize it.

8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

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

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.
Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

19. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

20. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

21. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

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

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Informal Guidelines of Research Paper Writing

Key points to remember:

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

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

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

General style:

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

To make a paper clear: Adhere to recommended page limits.



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Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

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

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

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

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

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

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

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

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



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Results:

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

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

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

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."

Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.

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

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals

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

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