

Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
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The Gulf Arabic response-categorization system

Appendix A – WORD LEVEL

1. Single noun and verb response codes:

Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
1.1	Correct Response	Target response is produced correctly	Noun: Hat {f}	Noun: Hat {f}	Not Applicable	This category is applied when the expected target response is produced depending on the requirement of the test.
			الاسم: طاقية	الاسم: طاقية		
			Verb: Pushing {m}	Verb: Pushing {m}		
			الفعل: يدفع	الفعل: يدفع		
1.1.1		Correct response in Standard Arabic (SA)	Noun: Girl {f} (in the Gulf dialect)	Noun: Girl {f}	Not Applicable	This category is to be applied when the target response expected is produced in Standard Arabic form.
			الاسم: بنت (في اللهجة الخليجية)	الاسم: فتاة		
			Verb: Crawling {m} (in the Gulf dialect)	Verb: Crawling {m}		
			الفعل: يحبى (في اللهجة الخليجية)	الفعل: يزحف		
1.1.2		Correct response in a different language other than Arabic	Noun: Curtain {f} (in Arabic)	Noun: Curtain (in English)	Not Applicable	This category is applied when the target response is produced in another language.
			الاسم: ستارة (في اللغة العربية)	الاسم: كيرتن (في اللغة الانجليزية)		
			Verb: Jumping {m} (in Arabic)	Verb: Jumping (in English)		
			الفعل: يقفز (في اللغة العربية)	الفعل: جامبينج (في اللغة الانجليزية)		
1.1.3		Production of a response equal in meaning to the target word and can be used interchangeably	Noun: Baby carriage {f}	Noun: Baby carriage {f}	Not Applicable	This category is applied when the response produced is an alternative form to the expected target response.
			الاسم: عربة	الاسم: غاري		
			Verb: Killing {m}	Verb: Killing {m}		
			الفعل: يقتل	الفعل: يذبح		

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Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
1.1.4		Target response is produced with a different pronunciation using an alternative allophone due to a dialectal variation	Noun: Cigarette {f} الاسم: سيجارة	Noun: Cigarette {f} الاسم: زيجارة	Not Applicable	This category is applied when the target response is pronounced using a different allophone which is common in dialectal Arabic.
			Verb: Skiing {m} الفعل: يتزلج	Verb: Skiing {m} الفعل: يتزلق		This is not considered a phonological error but a dialectal variation.
1.2		Visual errors:				This category is applied when an error is produced due to a visual similarity in the picture.
1.2.1		Production of a response visually related to the target item in the picture	Noun: Needle {f} الاسم: إبرة	Noun: Pen {m} الاسم: قلم	Visually related	This category is applied when the response produced is visually similar to the target picture.
			Verb: Kneading {m} الفعل: يعجن	Verb: Washing {m} الفعل: يغسل		
1.2.2	Visual Errors	Visual error due to a visual distractor presented in the picture	Noun: Trousers {m} الاسم: بنطلون	Noun: Pocket {f} الاسم: مخبي	Picture of the Noun: The trousers have pockets الصورة: بنطلون فيه مخبي	This category is applied when a related response to the picture is produced due to a visual distractor present in the picture.
			Verb: Judging {m} الفعل: يحكم	Verb: Pounding {m} الفعل: يطرق	Picture of the Verb: The judge is using a gavel الصورة: القاضي يستخدم المطرقة	
1.3	Semantic errors	Semantic errors:				This category is applied when an error is produced due to similar features/traits with the target response.

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1.3.1		Production of a semantically related error that is super-ordinate to the target response	Noun: Sheep {m} الاسم: خروف	Noun: Animal {m} الاسم: حيوان	Semantic super-ordinate error	This category is applied when the response produced is a general classification/category of the target word.
			Verb: Polishing {m} الفعل: يلمع	Verb: Cleaning {m} الفعل: ينظف		
1.3.2		Production of a semantically coordinate response to the target response	Noun: Giraffe {f} الاسم: زرافة	Noun: Deer {m} الاسم: غزال	Semantic coordinate error	This category is applied when the response produced belongs to the same classification/category of the target word.
			Verb: Diving {m} الفعل: يغوص	Verb: Swimming {m} الفعل: يسبح		
1.3.3		Production of a response that is associated to the target response	Noun: Cigarette {f} الاسم: سيجارة	Noun: Smoke {m} الاسم: دخان	Semantic associate error	This category is applied when an error is produced due to a semantic relationship that is associated with the target word.
			Verb: Kneading {m} الفعل: يعجن	Verb: Baking {m} الفعل: يخبز		
1.3.3.1		Production of a response in the form of a sound that is associated with the target response	Noun: Rooster {m} الاسم: ديك	Sound: Kookoo الصوت: كوكوكو	Sound associate error	This category is applied when an error is produced in the form of sound that is related to the target word.
			Verb: Honking {m} الفعل: يزمر	Sound: Beeep الصوت: بيبيب		
1.3.4		Production of a description of the target word form	Noun: Nail filer {m} الاسم: مبرد	Use: For the nails الاستخدام: حق الأظافر	Semantic circumlocution error	This category is applied when a description of the object/action is produced without mentioning the target response.
			Verb: Singing {m} الفعل: يغني	Use: For enjoyment الاستخدام: حق الطرب		
1.3.4.1		Production of a complete sentence	Noun: Sneakers {m} الاسم: جوتي	Sentence: The shoes with laces الجملة: جوتي بو خيط	Sentential production	This category is applied when a complete sentence is produced instead of the target word only.
			Verb: Digging {m} الفعل: يحفر	Sentence: He is digging the ground for the plants الجملة: يحفر الأرض عشان الزرع		

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1.3.4.2		Production of a noun/verb phrase by adding a doer/object to the target response	Noun: Player {m} الاسم: لاعب	Phrase: Football player {m} الجملة: لاعب كرة	Phrasal production	This category is applied when a noun/verb phrase is used instead of the target word only.
			Verb: Pulling {m} الفعل: يشد	Phrase: Pulling the rope {m} الجملة: يشد الحبل		
1.3.5		Production of an inaccurate response that shares semantic and visual features with the target response	Noun: Orange {f} الاسم: برتقالة	Noun: Lemon {m} الاسم: ليمون	Semantic and visual error	This category is applied when the error produced shares both visual and semantic features with the target response.
			Verb: Writing {m} الفعل: يكتب	Verb: Drawing {m} الفعل: يرسم		
1.3.6		Production of an inaccurate response that shares semantic and phonological features with the target response	Noun: Horse {m} الاسم: حصان	Noun: Donkey {m} الاسم: حمار	Semantic and phonological error	This category is applied when the error produced shares both phonological and semantic features with the target response.
			Verb: Skiing {m} الفعل: يتزلج	Verb: Sliding {m} الفعل: ينزلق		
1.4	Phonological Errors	Phonological errors:			Phonological error	The following categories are applied when the error produced shares 50% or more of the phonemes of the target response.
1.4.1		Production of a phonological error that is a real word form	Noun: Heart {m} الاسم: قلب	Noun: Dog {m} الاسم: كلب	Phonological related real word form	This category is applied when the phonological error produced resulted in producing another real word form than the target word.
			Verb: Pouring {m} الفعل: يصب	Verb: Painting {m} الفعل: يصبغ		
1.4.2		Production of a phonological error that resulted in a word form that does not exist	Noun: Slide {f} الاسم: زحليقة /zɪhla:ɡijæ/	الاسم: احليقة /ʕæla:ɡijæ/	Phonological related word form that is not real	This category is applied when the phonological error produced resulted in producing a word form that does not exist.
			Verb: Driving {m} الفعل: يقود /jqu:d/	الفعل: يقو /jqu:/		

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1.4.3		Production of a description of the sounds of the target word response	Noun: Leaf {f} الاسم: ورقة	Noun: there is the letter "a" الاسم: فيها حرف ال ق	Phonological circumlocution within a syntactic frame	This category is applied when a description of the phonemes is produced instead of the target word.
			Verb: Running {m} الفعل: يركض	Verb: there is the letter "n" الفعل: فيها حرف ال ض		
1.4.4		Production of part of the word in an attempt to encode phonemes	Noun: Car {f} الاسم: سيارة	Noun: c c ca الاسم: س س سي	Coduite d'approche	This category is applied when parts of the word are being produced in an attempt to articulate the relevant phonemes of the target word.
			Verb: Playing {m} الفعل: يلعب	Verb: p p pla الفعل: ي ي يل		
1.5	Unrelated Errors	Production of a real word form that is visually, semantically and phonologically unrelated to the target response	Noun: Sponge {f} الاسم: سفنجة	Noun: Watermelon {m} الاسم: جج	Unrelated word form	This category is applied when the word produced is an unrelated form which shares no visual, semantic or phonological features with the target word. The response is completely unrelated to the target.
			Verb: Skinning {m} الفعل: يسلخ	Verb: Sculpturing {m} الفعل: ينحت		
1.5.1	Unrelated Errors	Production of a word that does not exist and shares no phonological features with the target response	Noun: Umbrella {f} الاسم: شمسية	الاسم: سبار /saba:r/	Unrelated word form that does not exist	This category is applied when the phonological error produced resulted in producing a word form that does not exist.
			Verb: Planting {m} الفعل: يزرع	الفعل: يملك /jmkil/		
1.6	Other Response	Production of other responses that do not fit the previous categories	Not Applicable	Not Applicable	Other response	This category is applied when the word produced does not apply to any previous categories.
1.6.1		Production of the correct target response after producing an incorrect response	Not Applicable	Not Applicable	Self-correction	This category is applied when the target word is produced after an incorrect response.

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1.6.2		Production of a gesture related to the target response by pointing at the object or preforming an action	Not Applicable	Not Applicable	Gesture	This category is applied when a gesture of the target action is displayed or when the target object is pointed at from the surroundings.
1.7	Tip of the Tongue	Indication of knowing the object/action but cannot produce it	Not Applicable	Not Applicable	Tip of the tongue error	This category is applied when the person states that they know the object/action displayed in front of them however they cannot produce it.
1.8	Unknown Response	Responses of not knowing the object/action	Not Applicable	Not Applicable	Do not know	This category is applied when the person states that they do not know the object/action presented to them.
1.8.1		Indication that the object/action has been recognized but do not know the name	Not Applicable	Not Applicable	Do not know the name of object/action error	This category is applied when the person states that they recognize the object/action presented to them but they do not know the name of it.
1.8.2		Indication that the object/action is not recognized	Not Applicable	Not Applicable	Do not know the object/action error	This category is applied when the person states that they do not know the object/action presented to them.
1.9	No response	Failure to respond to the presented stimuli	Not Applicable	Not Applicable	No response	This category is applied when the person has failed to respond to the presented stimuli.

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2. Morphologically-complex nouns and verbs response codes:

Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
2.1	Correct Response	Target response is produced	Noun: Cats {f.pl} الاسم: قطاوة	Noun: Cats {f.pl} الاسم: قطاوة	Not Applicable	This category is applied when the expected target response is produced in its correct morpho-syntactic form.
			Verb: Dancing {m.pl.3rd} الفعل: يرقصون	Verb: Dancing {m.pl.3rd} الفعل: يرقصون		
2.1.1		Correct response in Standard Arabic (SA)	Noun: Dogs {m.pl} الاسم: تشلاب	Noun: Dogs {m.pl} الاسم: كلاب	Not Applicable	This category is to be applied when the target response is produced in Standard Arabic form.
			Verb: Jumping {m.pl.3rd} الفعل: ينقرون	Verb: Jumping {m.pl.3rd} الفعل: يقفرون		
2.1.2		Correct response in a different language other than Arabic	Noun: Flowers {f.pl} (in Arabic) الاسم: ورود (في اللغة العربية)	Noun: Flowers (in English) الاسم: فلاورز (في اللغة الانجليزية)	Not Applicable	This category is applied when the target response is produced in another language.
			Verb: Playing {m.pl.3rd} (in Arabic) الفعل: يلعبون (في اللغة العربية)	Verb: Playing (in English) الفعل: بلاينج (في اللغة الانجليزية)		
2.1.3		Production of a response equal in meaning to the target word and can be used interchangeably	Noun: Boys {m.pl} الاسم: أولاد	Noun: Boys {m.pl} الاسم: صبيان	Not Applicable	This category is applied when the response is an alternative form to the expected target response.
			Verb: Reading {n.pl.3rd} الفعل: يقرأون	Verb: Reading {n.pl.3rd} الفعل: يقرون		
2.1.4		Target response is produced with a different pronunciation using an alternative allophone due to a dialectal variation	Noun: Men {m.pl} الاسم: رجال	Noun: Men {m.pl} الاسم: ربايل	Not Applicable	This category is applied when the target response is pronounced using a different allophone which is common in dialectal Arabic. This is not considered a phonological error but a dialectal variation.
			Verb: Crying {n.pl.3rd} الفعل: يبكون	Verb: Crying {n.pl.3rd} الفعل: يبتشون		

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2.2	Incorrect Gender	Incorrect gender marking:				This category is applied when the produced word is in a different gender form than the target word.
2.2.1		Production of a masculine word pattern instead of a feminine word pattern	Noun: Doctor {f.sg} الاسم: طبيبة	Noun: Doctor {m.sg} الاسم: طبيب	Incorrectly marked gender for feminine patterns	This category is applied when the produced word is in the masculine form instead of the target feminine form.
			Verb: Kissing {f.sg.3rd} الفعل: تبوس	Verb: Kissing {m.sg.3rd} الفعل: ييوس		
2.2.2		Production of a feminine word pattern instead of a masculine word pattern	Noun: Cat {m.sg} الاسم: قط	Noun: Cat {f.sg} الاسم: قطة	Incorrectly marked gender for masculine patterns	This category is applied when the produced word is in the feminine form instead of the target masculine form.
			Verb: Cleaning {m.sg.3rd} الفعل: ينظف	Verb: Cleaning {f.sg.3rd} الفعل: تنظف		
2.3	Incorrect Number	Incorrect number marking:				This category is applied when the produced word is in a different number form than the target word.
2.3.1		Production of a singular vocalic pattern instead of a dual or plural vocalic pattern	Noun: Two balls {f.du} الاسم: كرتان	Noun: Ball {f.sg} الاسم: كرة	Incorrectly marked number (dual/plural to single)	This category is applied when the produced word is in a singular form rather than the target dual or plural form.
			Verb: Carrying {m.du.3rd} الفعل: يحملان	Verb: Carrying {m.sg.3rd} الفعل: يحمل		
2.3.2		Production of a dual or plural vocalic pattern instead of a single vocalic pattern	Noun: Pen {m.sg} الاسم: قلم	Noun: Pens {m.pl} الاسم: الأقلام	Incorrectly marked number (single to dual/plural)	This category is applied when the produced word is in a dual or plural form than the target single form.
			Verb: Dancing {f.sg.3rd} الفعل: ترقص	Verb: Dancing {f.pl.3rd} الفعل: ترقصن		
2.3.3		Production of a plural vocalic pattern instead of a dual vocalic pattern	Noun: Two balls {f.du} الاسم: كرتان	Noun: Balls {f.pl} الاسم: كرات	Incorrectly marked number (dual to plural)	This category is applied when the produced word is in a plural form than the target dual form.
			Verb: Playing {m.du.3rd} الفعل: يلعبان	Verb: Playing {m.pl.3rd} الفعل: يلعبون		

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2.3.4		Production of the uninflected singular form of the target response, followed by a lexical cardinal number	Noun: Two donkeys {m.du} الاسم: حماران	Noun: Donkey {m.sg} two الاسم: حمار اثنين	Lexical substitution of the morpho-syntax of the target response	This category is applied when the singular form of the target form is produced followed by the corresponding cardinal number.
			Verb: Running {m.du.3rd} الفعل: يركضان	Verb: Running {m.sg.3rd} two الفعل: يركض اثنان		
2.3.5		Production of responses with a regular inflection instead of the original irregular inflection	Noun: Skirts (broken plural) الاسم: تنانير	Noun: Skirts (sound plural) الاسم: تنورات	Over-regularization error	This category is applied to nouns; when the response produced is a sound plural form instead of the target broken plural form.
2.3.6		Production of responses with a different vocalic pattern than the target form, which results to a change in number	Noun: Curtain {f.sg} الاسم: ستارة	Noun: Curtains (broken plural) الاسم: ستاير	Number inflection error	This category is applied to nouns; when there is a vocalic pattern change in the target word which resulted in a number change.
2.4	Incorrect Person	Inflection of an incorrectly marked person form			Incorrect person marking	This category is applied to verbs; when the response produced is in a different person form than the target form.
2.4.1		Incorrect substitution of the person prefix	Verb: Sleeping {m.sg.3rd} الفعل: ينام	Verb: Sleep {m.sg.1st} الفعل: أنام	Incorrectly suffixed person	This category is applied to verbs; when the response produced is in a second person form than the target third person form.
2.5	Morpho-phonological Error in the	Production of the target consonantal root with a morpho-phonological error			Morpho-phonological error	This category is applied when a morpho-phonological error is produced in the consonantal root of the target word.

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2.5.1		Production of a noun/verb/adjective derived from the same consonantal root of the target response	Noun: Hair cover {m.sg} الاسم: حجاب	Adjective: Hair-covered person {f.sg} الاسم: محجبة	Derivational error	This category is applied when an adjective form of the target noun is derived.
			Verb: Fencing {m.sg.3rd} الفعل: يبارز	Noun: Fencing الاسم: مبارزة		This category is applied when a noun form of the target verb is derived.
2.5.2		Production of the target consonantal root but with a substitution of the vocalic pattern	Noun: Glasses {f.sg} الاسم: نظارة /naðˤara/	الاسم: نظرة /naðˤera/	Morpho-phonological error of the vocalic pattern	This category is applied when a substitution occurs in the vocalic pattern of the target word.
			Verb: Running {m.sg.3rd} الفعل: يجري /jadzri/	الفعل: يجز /jadzra/		
2.5.3		Production of the target pattern with a change in one of the phonemes of the consonantal root	Noun: Flag {m.sg} الاسم: علم /ʕalam/	الاسم: عثم /ʕatam/	Consonantal root error	This category is applied when there is a change in the consonantal root of the target.
			Verb: Writing {m.sg.3rd} الفعل: يكتب /jiktɪb/	الفعل: يكتب /jɪkɪnb/		
2.5.4		Production of the target consonantal root but with an omission in one of the phonemes of the consonantal root.	Noun: Pen {m.sg} الاسم: قلم /qalam/	الاسم: قل /qala/	Morpho-phonological error of the consonant root	This category is applied when there is an omission in a phoneme in the consonantal root of the target.
			Verb: Sitting {m.sg.3rd} الفعل: جالس /dʒæles/	الفعل: الس /æles/		
2.6	Morpho-phonological Errors for Nouns	Morpho-phonological errors for Nouns:				This category is applied to morpho-phonological errors produced in nouns.
2.6.1		Production of a target consonantal root with a change in the vocalic pattern	Noun: Books {f.pl} الاسم: كتب /kɒtɒb/	Noun: Book {m.sg} الاسم: كتاب /kɪtab/	Vocalic pattern error	This category is applied when the consonantal root is produced with a change in the vocalic pattern.

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2.6.2		Production of a word form with the definite article instead of the target response	Noun: Paper {f.sg} الاسم: ورقة	Noun: The paper {f.sg} الاسم: الورقة	Definiteness error	This category is applied when the definite article is added to the target word.
2.6.3		Production of a word form without the definite article present	Noun: The ball {f.sg} الاسم: الكرة	Noun: Ball {f.sg} الاسم: كرة	Indefiniteness error	This category is applied when the definite article is omitted from the target word.
2.7	Morpho-phonological Errors for Verbs	Morpho-phonological errors for Verbs:				This category is applied to morpho-phonological errors produced in verbs.
2.7.1		Production of a perfective tense instead of an imperfective tense	Verb: Writing {f.sg.3rd} الفعل: تكتب	Verb: Wrote {f.sg.3rd} الفعل: كتبت	Perfective tense error	This category is applied when the target verb is produced in the perfective tense.
2.7.2		Production of an imperfective tense instead of a perfective tense	Verb: Ran {m.sg.3rd} الفعل: ركض	Verb: Running {m.sg.3rd} الفعل: يركض	Imperfective tense error	This category is applied when the target verb is produced in the imperfective tense.
2.7.3		Production of an active tense instead of a passive tense	Verb: is being written الفعل: يُكتب	Verb: has been written الفعل: كُتِبَ	Passivation error	This category is applied when the target verb is produced in the active tense.
2.7.4		Production of a progressive form instead of a non-progressive form	Verb: Is barking {m.sg.3rd} الفعل: ينبج	Verb: Barking {m.sg.3rd} الفعل: ينابج	Progressive error	This category is applied when the target verb is produced in the progressive form.
2.7.5		Production of a non-progressive form instead of a progressive form	Verb: Sitting {m.sg.3rd} الفعل: قاعد	Verb: Is sitting {m.sg.3rd} الفعل: يقعد	Non-progressive error	This category is applied when the target verb is produced in the non-progressive form.
2.7.6		Production of a geminate form of the target response	Verb: Washing {m.sg.3rd} الفعل: يغسل	Verb: Washing {m.sg.3rd} الفعل: يغسل	Gemination error	This category is applied when a doubled consonant of the target word is produced. Also known as the intensity of the verb.

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Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
2.8	Other Response	Production of responses that do not fit any of the above categories	Not Applicable	Not Applicable	Other response	This category is applied when the word produced does not apply to any previous categories.
2.9	No Response	Failure to produce any utterance to the stimulus presented	Not Applicable	Not Applicable	No response	This category is applied when the person has failed to respond to the presented stimuli.

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Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
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PHRASE LEVEL

1. Noun Agreement: Morpho-syntactic accuracy in the head and modifier of the noun phrase:

Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
1.1	Correct Response	Production of the target noun phrase correctly	Phrase: Beautiful {f.pl} dancers {f.pl} العبارة: راقصات جميلات	Phrase: Beautiful {f.pl} dancers {f.pl} العبارة: راقصات جميلات	Not Applicable	This category is applied when the target noun phrase is produced correctly.
1.2	Morpho-syntactic Errors	Morpho-syntactic error to either head or modifier				This category is applied when an error is produced in the head or modifier of the target noun phrase.
1.2.1	Number Disagreement	Omission or substitution to the number inflection			Number disagreement	This category is applied when the head and modifier have the same gender inflections but different number inflections than the target noun phrase.
1.2.1.1		Production of a dual head instead of a singular head	Phrase: Big {m.sg} bus {m.sg} الجملة: باص كبير	Phrase: Big {m.sg} buses {m.du} الجملة: باصان كبير	Head noun only	This category is applied when the head in the noun phrase has a different number inflection than the modifier of the target noun phrase.
1.2.1.2		Production of a dual modifier instead of a singular modifier	Phrase: Big {f.sg} banana {f.sg} الجملة: موزة كبيرة	Phrase: Big {f.du} banana {f.sg} الجملة: موزة كبيرتان	Modifier only	This category is applied when the modifier in the noun phrase has a different number inflection than the head of the target noun phrase.

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1.2.2	Gender Disagreement	Omission or substitution to the gender inflection			Gender disagreement	This category is applied when the head and modifier have the same number inflections but different gender inflections than the target noun phrase.
1.2.2.1		Production of a different gender form of the target head	Phrase: Beautiful {f.sg} dancer {f.sg} الجملة: راقصة جميلة	Phrase: beautiful {f.sg} dancer {m.sg} الجملة: راقص جميلة	Head noun only	This category is applied when the head in the noun phrase has a different gender inflection than the modifier of the target noun phrase.
1.2.2.2		Production of a different gender form of the target modifier	Phrase: Professional {f.sg} doctor {f.sg} الجملة: دكتورة شاطرة	Phrase: Professional {m.sg} doctor {f.sg} الجملة: دكتور شاطر	Modifier only	This category is applied when the modifier in the noun phrase has a different gender inflection than the head of the target noun phrase.
1.2.3	Number and Gender Disagreement	Omission or substitution to the number and gender inflections			Number and gender disagreement	This category is applied when the head and modifier have different number and gender inflections of the target noun phrase.
1.2.3.1		Production of a masculine singular form of the target head instead of the feminine plural form	Phrase: Good {f.pl} teachers {f.pl} الجملة: مُعلّمتات شاطرات	Phrase: Good {f.pl} teacher {m.sg} الجملة: مُعلم شاطرات	Head noun only	This category is applied when the head in the noun phrase has a different number and gender inflection than the modifier of the target noun phrase.
1.2.3.2		Production of a masculine singular form of the target modifier instead of	Phrase: Young {f.pl} girls {f.pl} الجملة: بنات صغيرات	Phrase: Young {m.sg} girls {f.pl} الجملة: بنات صغير	Modifier only	This category is applied when the modifier in the noun phrase has a

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		the feminine plural form				different number and gender inflection than the head of the target noun phrase.
1.2.4	Canonical Noun Phrase	Production of a modified morpho-syntactic head and modifier			Canonical noun phrase	This category is applied when the response produced differed in both head and modifier of the target noun phrase.
1.2.4.1		Production of a singular form of the target phrase instead of the plural form	Phrase: Small {f.pl} candles {f.pl} الجملة: شمعات صغيرة	Phrase: Small {f.sg} candle {f.sg} الجملة: شمعة صغيرة	Alternative number to head and modifier	This category is applied when both the head and modifier produced have a different number inflection than the target noun phrase.
1.2.4.2		Production of a different gender form of the target phrase	Phrase: Good {f.sg} teacher {f.sg} الجملة: مُعلمة شاطرة	Phrase: Good {m.sg} teacher {m.sg} الجملة: مُعلم شاطر	Alternative gender to head and modifier	This category is applied when both the head and modifier produced have a different gender inflection than the target noun phrase.
1.2.4.3		Production of a masculine singular form of the target phrase instead of the feminine plural form	Phrase: Beautiful {f.pl} singers {f.pl} الجملة: مغنيات جميلات	Phrase: Beautiful {m.sg} singer {m.sg} الجملة: مغني جميل	Alternative number and gender to head and modifier	This category is applied when both the head and modifier produced have a different number and gender inflection than the target noun phrase.
1.3	Other Response	Production of responses that do not fit any of the above categories			Other response	This category is applied when the target noun phrase produced does not apply to any previous categories.
1.3.1		Production of a non-existing word form of the head	Phrase: Good {m.sg} teacher {m.sg} الجملة: مُعلم شاطر	الجملة: مُلم شاطر /mulɪm ʃætr/	Non-word noun but classifiable modifier	This category is applied when only the head of the noun phrase does not exist.

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Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
1.3.2		Production of a non-existing word form of the modifier	Phrase: Good {f.sg} teacher {f.sg} الجملة: مُعلِّمة شاطرة	الجملة: مُعلِّمة شار /muʕəlimæ ʃær/	Non-word modifier but classifiable head	This category is applied when only the modifier of the noun phrase does not exist.
1.3.3		Production of a non-existing word forms of the head and modifier	Phrase: Good {m.pl} teachers {m.pl} الجملة: معلمون شاطرون	الجملة: ملم شار /mulɪm ʃær/	Both noun and modifier unclassifiable	This category is applied when both the head and modifier of the noun phrase do not exist.
1.4	No Response	Failure to produce one or more of the noun phrase elements (noun/adjective)	Not Applicable	Not Applicable	No response	This category is applied when the person has failed to produce one or more of the components of the noun phrase.
1.4.1		Production of the modifier only	Phrase: Handsome {m.sg} boy الجملة: ولد جميل	Adjective: Handsome {m.sg} الاسم: جميل	Absence of noun only	This category is applied when only the modifier of the target noun phrase has been produced.
1.4.2		Production of the head only	Phrase: Young {f.sg} girl الجملة: بنت صغيرة	Noun: Girl {f.sg} الاسم: بنت	Absence of modifier only	This category is applied when only the head of the target noun phrase has been produced.
1.4.3		Failure to produce any utterance to the stimulus presented	Not Applicable	Not Applicable	Absence of both head and modifier	This category is applied when the person has failed to respond to the presented stimuli.

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2. Verb Agreement: Production of verb-subject agreement in both subject-verb-object (SVO) and verb-subject-object (VSO) sentence sequence in the verb phrase.

Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
2.1	Correct Response	Production of the target verb phrase correctly	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Not Applicable	This category is applied when the target verb phrase is produced correctly.
2.2	Morpho-syntactic Errors	Morpho-syntactic error to either/and the verb or subject				This category is applied when an error was produced in the verb or subject of the target verb phrase.
2.2.1	Number Disagreement	Omission or substitution to the number inflection			Number disagreement	This category is applied when the verb and subject have the same gender inflection but different number inflections than the target verb phrase.
2.2.1.1		Production of a plural form of the target verb instead of a singular form	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Phrase: The teacher {m.sg} are writing {m.pl.3rd.prs} the exam الجملة: المعلم يكتبون الامتحان	Verb only	This category is applied when the verb in the verb phrase has a different number inflection than the subject of the target verb phrase.
2.2.1.2		Production of a plural form of the target subject instead of a singular form	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Phrase: The teachers {m.pl} is writing {m.sg.3rd.prs} the exam	Subject only	This category is applied when the subject in the verb phrase has a different number inflection than the verb of the target verb phrase.

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Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
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				الجملة: المعلمون يكتب الامتحان		
2.2.2	Gender Disagreement	Omission or substitution to the gender inflection			Gender disagreement	This category is applied when the verb and subject have the same number inflections but different gender inflections than the target verb phrase.
2.2.2.1		Production of a different gender form of the target verb	Phrase: The teacher {f.sg} is writing {f.sg.3rd.prs} the exam الجملة: المعلمة تكتب الامتحان	Phrase: The teacher {f.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلمة يكتب الامتحان	Verb only	This category is applied when the verb in the verb phrase has a different gender inflection than the subject of the target verb phrase.
2.2.2.2		Production of a different gender form of the target subject	Phrase: The teacher {f.sg} is writing {f.sg.3rd.prs} the exam الجملة: المعلمة تكتب الامتحان	Phrase: The teacher {m.sg} is writing {f.sg.3rd.prs} the exam الجملة: المعلم تكتب الامتحان	Subject only	This category is applied when the subject in the verb phrase has a different gender inflection than the verb of the target verb phrase.
2.2.3	Person Disagreement	Omission or substitution to the person inflection			Person disagreement	This category is applied when the verb and subject have the same gender inflections but different person inflections than the target verb phrase.
2.2.3.1		Production of a different person inflection of the target verb form	Phrase: He {m.sg.3rd} is writing {m.sg.3rd.prs} the exam الجملة: هو يكتب الامتحان	Phrase: He {m.sg.3rd} am writing {n.sg.1st.prs} the exam الجملة: هو أكتب الامتحان	Verb only	This category is applied when the verb in the verb phrase has a different person inflection than the subject of the target verb phrase.
2.2.3.2		Production of a different person inflection form of the target subject form	Phrase: You {m.sg.2nd} are writing {m.sg.2nd.prs} the exam	Phrase: He {m.sg.3rd} is writing {m.sg.2nd.prs} the exam	Subject only	This category is applied when the subject in the verb phrase has a different person inflection

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			الجملة: أنت تكتب الامتحان	الجملة: هو تكتب الامتحان		than the verb of the target verb phrase.
2.2.4	Tense Disagreement	Production of a different tense form of the target verb			Tense disagreement	This category is applied when the verb in the verb phrase is produced in a different tense form than the targeted tense form of the verb.
2.2.4.1		Production of a verb in the past tense instead of the present tense	Phrase: The boy {m.sg} is playing {m.sg.3rd.prs} with the ball الجملة: الولد يلعب بالكرة	Phrase: The boy {m.sg} played {m.sg.3rd.pst} with the ball الجملة: الولد لعب بالكرة	Past tense	This category is applied when the verb in the verb phrase is produced in the past tense form than the targeted present form of the verb.
2.2.4.2		Production of a verb in the present tense instead of the past tense	Phrase: The girl {f.sg} slept {f.sg.3rd.pst} early الجملة: البنت نامت باكراً	Phrase: The girl {f.sg} is sleeping {f.sg.3rd.prs} early الجملة: البنت تنام باكراً	Present tense	This category is applied when the verb in the verb phrase is produced in the present tense form than the targeted past form of the verb.
2.2.5	Number, Gender, and Person Disagreement	Production of a different gender form and number inflection of the target verb	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Phrase: The teacher {m.sg} are writing {f.pl.3rd.prs} the exam الجملة: المعلم تكتب الامتحان	Number and gender disagreement	This category is applied when only the verb in the verb phrase has a different number and gender inflection than the verb of the target verb phrase.
2.2.6		Production of different person inflection and number inflection of the target verb	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Phrase: The teacher {m.sg} are writing {m.pl.2nd.prs} the exam الجملة: المعلم تكتبون الامتحان	Number and person disagreement	This category is applied when only the verb in the verb phrase has a different number and person inflection than the verb of the target verb phrase.

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Code	Code Type	Description	Target Response	Response Produced	Error Type (when applicable)	Notes
2.2.7		Production of a different gender form and person inflection of the target verb	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Phrase: The teacher {m.sg} are writing {f.sg.2nd.prs} the exam الجملة: المعلم تكتب الامتحان	Person and gender disagreement	This category is applied when only the verb in the verb phrase has a different person and gender inflection than the verb of the target verb phrase.
2.2.8		Production of a different gender form, person inflection and number inflection of the target verb	Phrase: The teacher {f.sg} is writing {f.sg.3rd.prs} the exam الجملة: المعلمة تكتب الامتحان	Phrase: The teacher {f.sg} are writing {m.pl.2nd.prs} the exam الجملة: المعلمة تكتبون الامتحان	Number, gender and person disagreement	This category is applied when only the verb in the verb phrase has a different number, gender and person inflection than the verb of the target verb phrase.
2.2.9	Canonical Verb Phrase	Production of a modified morpho-syntactic verb and subject			Canonical verb phrase	This category is applied when the response produced differed in both verb and subject of the target verb phrase.
2.2.9.1		Production of a different number inflection of the target phrase	Phrase: The teacher {f.sg} is writing {f.sg.3rd.prs} the exam الجملة: المعلمة تكتب الامتحان	Phrase: The teachers {f.pl} are writing {f.pl.3rd.prs} the exam الجملة: المعلمات تكتب الامتحان	Alternative number to verb and subject	This category is applied when both the verb and subject produced have a different number inflection than the target verb phrase.
2.2.9.2		Production of a different gender form of the target phrase	Phrase: The teachers {f.pl} are writing {f.pl} the exam الجملة: المعلمات تكتب الامتحان	Phrase: The teachers {m.pl} are writing {m.pl} the exam الجملة: المعلمون يكتبون الامتحان	Alternative gender to verb and subject	This category is applied when both the verb and subject produced have a different gender inflection than the target verb phrase.
2.2.9.3		Production of a different person inflection of the target phrase	Phrase: You {f.sg.2nd} are writing {f.sg.2nd.prs} the exam الجملة: انتِ تكتبين الامتحان	Phrase: The teacher {f.sg.3rd} is writing {f.sg.3rd.prs} the exam الجملة: المعلمة تكتب الامتحان	Alternative person to verb and subject	This category is applied when both the verb and subject produced have a different person inflection than the target verb phrase.

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2.2.9.4		Production of a different number inflection and gender inflection form of the target phrase	Phrase: The teacher {f.sg} is writing {f.sg.3rd.prs} the exam الجملة: المعلمة تكتب الامتحان	Phrase: The teachers {m.du} are writing {m.du.3rd.prs} the exam الجملة: المعلمان يكتبان الامتحان	Alternative number and gender to verb and subject	This category is applied when both the verb and subject produced have a different number and gender inflection than the target verb phrase.
2.2.9.5		Production of a different number inflection and person inflection of the target phrase	Phrase: You {m.sg.2nd} are writing {m.sg.2nd.prs} the exam الجملة: أنت تكتب الامتحان	Phrase: The teacher {m.sg.3rd} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Alternative person and number to verb and subject	This category is applied when both the verb and subject produced have a different person and number inflection than the target verb phrase (the subject can be lexically changed).
2.2.9.6		Production of a different gender form and person inflection of the target phrase	Phrase: You {f.sg.2nd} are writing {f.sg.2nd.prs} the exam الجملة: أنتِ تكتبين الامتحان	Phrase: The teacher {m.sg.3rd} is writing {m.sg.3rd.prs} the exam الجملة: المعلم يكتب الامتحان	Alternative person and gender to verb and subject	This category is applied when both the verb and subject produced have a different person and gender inflection than the target verb phrase.
2.3	Other Responses	Production of responses that do not fit any of the above categories	Not Applicable	Not Applicable	Other response	This category is applied when the target verb phrase produced does not apply to any previous categories.
2.3.1		Production of a non-existing word form of the verb	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} الجملة: المعلم يكتب	الجملة: المعلم يب /l-muʕəllim-u j-æb-u/	Non-word verb but classifiable subject	This category is applied when only the verb of the verb phrase does not exist.
2.3.2		Production of a non-existing word form of the subject	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} الجملة: المعلم يكتب	الجملة: المعلم يكتب /l-muʕəl j-æktub-u/	Non-word subject but classifiable verb	This category is applied when only the subject of the verb phrase does not exist.

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2.3.3	No Response	Production of a non-existing word forms of the verb and subject	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} الجملة: المعلم يكتب	الجملة: المعلم يكتب /l-mʊʕəl j-æb-ʊ/	Both verb and subject unclassifiable	This category is applied when both the verb and subject of the verb phrase do not exist.
2.4		Failure to produce one or more of the verb phrase elements (verb/subject)	Not Applicable	Not Applicable	No response	This category is applied when the person has failed to produce one or more of the components of the verb phrase.
2.4.1		Production of the subject only	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} الجملة: المعلم يكتب	Subject: The teacher {m.sg} الاسم: المعلم	Absence of verb only	This category is applied when only the subject of the target verb phrase has been produced.
2.4.2		Production of the verb only	Phrase: The teacher {m.sg} is writing {m.sg.3rd.prs} الجملة: المعلم يكتب	Verb: Is writing {m.sg.3rd.prs} الفعل: يكتب	Absence of subject only	This category is applied when only the verb of the target verb phrase has been produced.
2.4.3		Failure to produce any utterance to the stimulus presented	Not Applicable	Not Applicable	Absence of both verb and subject	This category is applied when the person has failed to respond to the presented stimuli.

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