English grammar learning through WhatsApp and feedback type: Learners' perceptions

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WhatsApp

- Mobile instant messaging (MIM) app widely available nowadays.
- Two billion people use it worldwide (Statista, 2024).
- According to a recent report (IAB, 2023):
  - 88% of Spanish citizens use WhatsApp
  - Most popular social media app in Spain, especially among youngsters (93% use it)
  - Spaniards spend almost 90 minutes a day using WhatsApp
- Easily accessible through iOS / Android operating systems and computer-based app.
- Allows personalised feedback thanks to the reply function, both public and private.

WhatsApp for language learning purposes

- Studies on the usability of WhatsApp for language learning began to flourish in mid 2010s.
- WhatsApp used as a platform for (Syairofi et al., 2023):
  - Doing learning tasks and activities mediated by practitioners
  - Exchanging didactic materials
  - Q&A
  - Discussion and collaborative learning among students
  - Peer assessment
- Reported benefits of WhatsApp for language learning include (Alamer & Al Khateeb, 2023; Kartal, 2019; Syairofi et al., 2023):
  - Increased levels of learners' motivation
  - Reduced learning anxiety
  - Increased engagement in the learning process
  - More extramural practice and higher flexibility
  - Increased interaction among / between students and teacher

Learners' views of WhatsApp

Learners' views gathered through questionnaires, semi-structured interviews or focus groups' discussions:

- Overall, **positive attitudes** towards the use of WhatsApp for language learning purposes (Abubakar, 2021; Mistar & Embi, 2016; Rambe & Bere, 2013)
- WhatsApp valued very positively for learning **vocabulary** and practicing **speaking**; **extramural practice opportunities** were also highly rated (Khan, 2021)
- Increased opportunities to practice **reading** and **writing** at the same time it is labelled as an **innovative approach** (Alqahtani et al., 2018; Tümen Akyıldız & Çelik, 2021)

However…

- Ali and Bin-Hady (2019) found that **grammar** was one of the most **challenging** skills to learn through WhatsApp and reported that participants generally preferred classroom learning to WhatsApp learning.
- Feeling of being **constantly observed** and **assessed** by the teacher or more proficient peers (García-Gómez, 2022)
- Some see it as a mere **extension of the classroom** context, possibly due to the presence of the teacher (Lamy & Zourou, 2013)

WhatsApp as a feedback provider tool

- WhatsApp proved to be a useful tool to give feedback to **primary school students**, who completed a set of listening comprehension tasks. Preference for visual feedback at lower primary levels and written text at upper levels (Soria et al., 2020)
- WhatsApp seen as an effective and timely tool to provide feedback among university students, but **little sense of belonging** to the WhatsApp group and preference for **video-based synchronous feedback** (Sugianto et al., 2021)
- Grammar-based feedback through WhatsApp beneficial for L2 oral production (Weissheimer et al., 2018)
- Andujar (2020) and Green (2021) saw that WhatsApp was an effective platform to give written and oral corrective feedback in **longitudinal studies**:
    - Preference for more **explicit feedback** through MIM applications, in line with previous research (see next slide)
- **During-task** feedback through WhatsApp more beneficial than post-task feedback, due to its immediacy and better recall by learners (Murphy et al., 2023)

Feedback preferences

- Nagata (1993) and Kim and Mathes (2001) already showed learners' preferences for metalinguistic explanations
- Explicit written corrective feedback more valued than other types of feedback (Karim & Nassaji, 2015; Tasdemir et al., 2018; Zhang et al., 2021)
    - Easier for learners to identify the mistake and understand why it is not totally accurate
- In studies exploring different types of written corrective feedback, more explicit feedback tends to be the most highly rated: Explicit correction > Reformulation > Elicitation > Repetition > Clarification request (Lee, 2013)
- Written explicit corrective feedback also leads to higher indices of **grammar learning** (Ellis et al., 2006)
- Similar results also applicable to **oral corrective feedback** (Fitriana et al., 2016; Yang, 2016)

Research questions

What are university EFL learners' **perceptions** (i.e., satisfaction levels, feeling of learning and engagement with feedback) of receiving feedback for grammar practice through WhatsApp?

To what extent do these perceptions **differ depending on the type of feedback received**: metalinguistic explanations, reformulations or repetition prompts?

Participants (*N*=78)

- Mean age: 19.58 yo (SD=1.85)
- Catalan / Spanish bilinguals (96.2%)
- Pre-intermediate learners of English (B1 level on average)
- Three groups (intact classes):
  - Metalinguistic explanations (*n*=29)
  - Reformulations (*n*=29)
  - Repetition prompts (*n*=20)
- 96.2% use WhatsApp daily
  - 26.9% use it 30-60 minutes / day
  - 38.5% use it 1-2 hours / day
  - 23.1% use it 3-4 hours / day
- 89.7% had never used WhatsApp for learning foreign languages
  - e.g., to practice speaking (2.6%), class diary (2.6%), reading club (1.3%), grammar learning (2.6%)

Instruments

Coursebook (Norris, 2021)

- *be / get used to*; *less / the least + adj.*; *so / such*
- PPP approach (Larsen-Freeman, 2003)

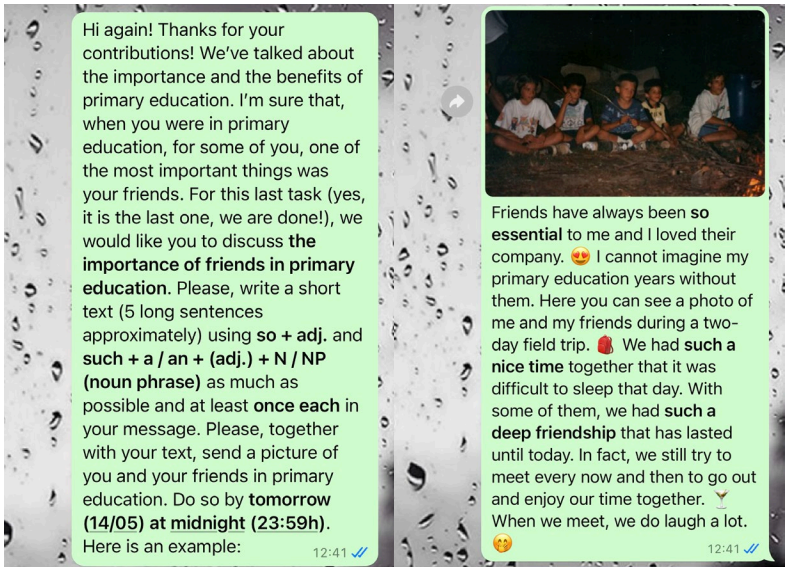
Grammaticality Judgement Test (Nassaji, 2000)

- 4 practice items + 72 test items:
  - 48 target items (16 / structure; half correct, half incorrect)
  - 24 distractors (half correct, half incorrect)
- Implicit (6 seconds / item; no possibility to go back)
- Explicit (25 minutes for all 72 items; possibility to revise the answers)

“Please indicate if the following sentences (practice and test items) are grammatically accurate or not” + Error correction (explicit only)

Instruments

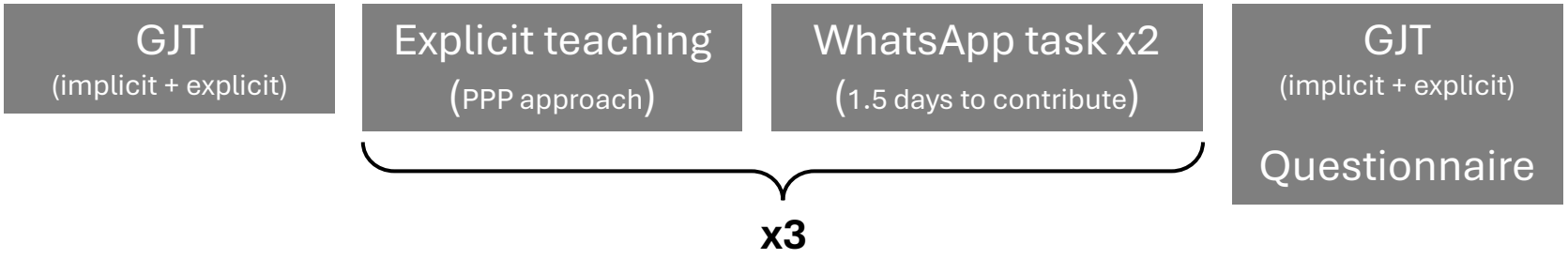
- Seven **WhatsApp tasks** (one ice-breaker + two / structure)
- Short text using the target structures and photo sharing on some occasions
- Tasks X.2 asked participants to respond to some of their classmates' previous contributions
- Examples always provided by the teacher



Instruments

- Final **questionnaire** administered online during class time
- Questions inquiring about:
  - Background information
  - Satisfaction with feedback
  - Feeling of learning
  - Engagement with feedback
  - Error correction
  - Feedback preferences
  - Satisfaction with WhatsApp as a language learning tool
  - Satisfaction with the intervention *per se*
  - Use of AI or external help during the intervention

Procedure



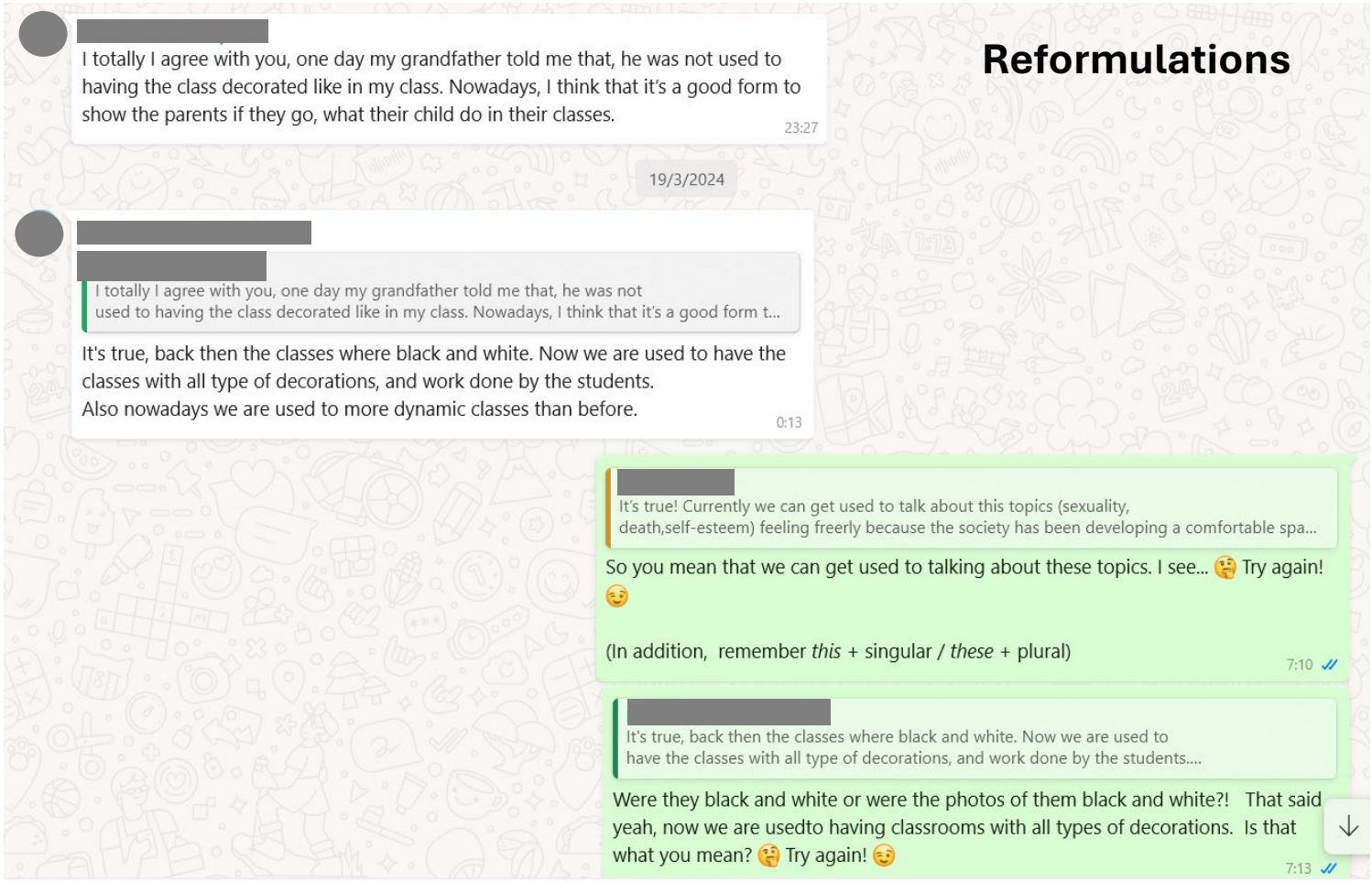
- GJT implicit version → at the beginning of the class
- Questionnaire administered in between (only at post-test time; regular class at pre-test time)
- GJT explicit version → at the end of the class

- WhatsApp groups of 10-12 students each (classes were divided into 2-3 groups for logistic reasons)
- Feedback given on the target structures only (unless basic serious mistakes spotted)
- Positive reinforcement when error-free contributions were made
- Feedback given almost immediately (hours or even minutes after the contribution)

Procedure

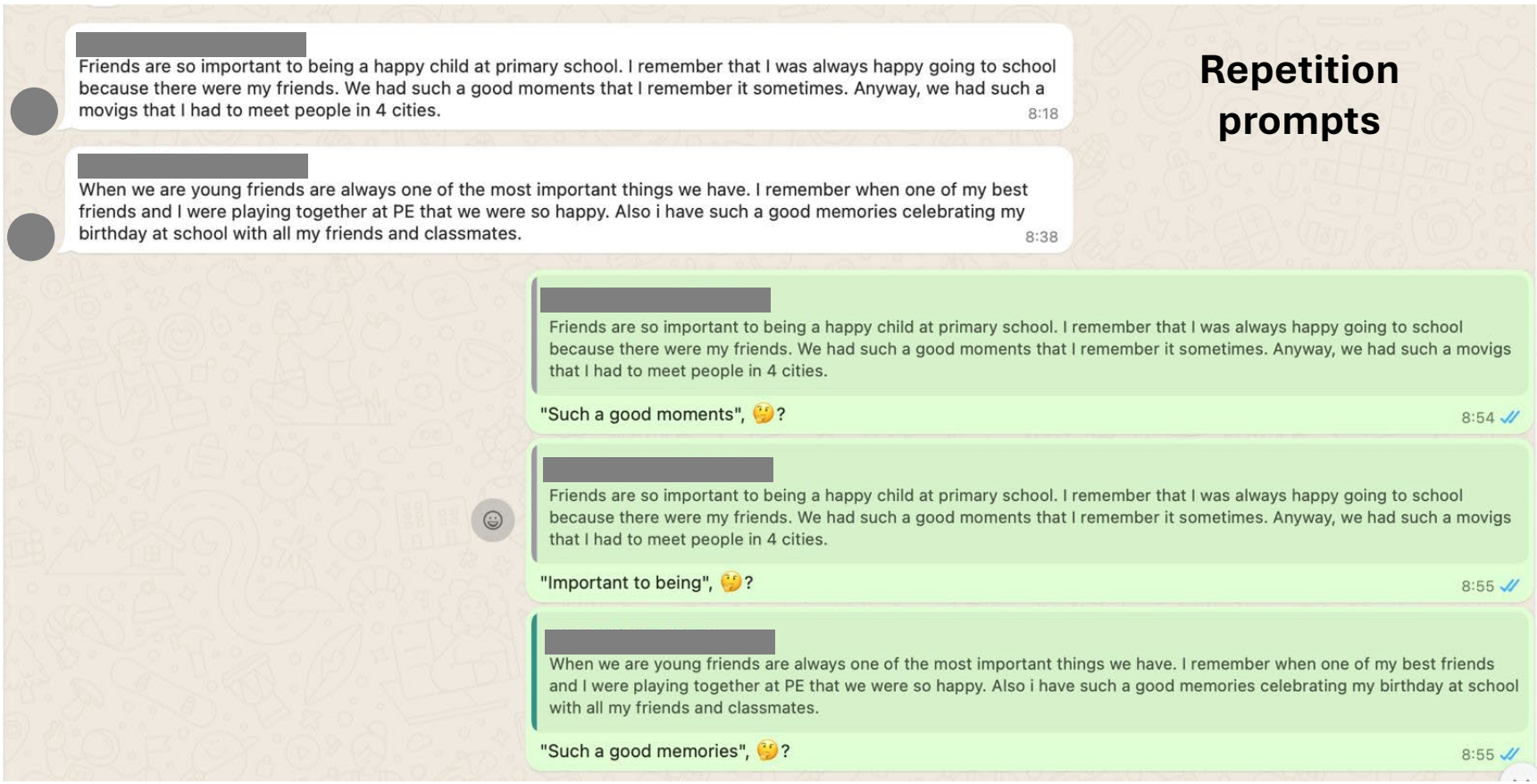
Metalinguistic explanations

Procedure



Reformulations

Procedure


Friends are so important to being a happy child at primary school. I remember that I was always happy going to school because there were my friends. We had such a good moments that I remember it sometimes. Anyway, we had such a movigs that I had to meet people in 4 cities.
8:18
When we are young friends are always one of the most important things we have. I remember when one of my best friends and I were playing together at PE that we were so happy. Also i have such a good memories celebrating my birthday at school with all my friends and classmates.
8:38
Repetition prompts
Friends are so important to being a happy child at primary school. I remember that I was always happy going to school because there were my friends. We had such a good moments that I remember it sometimes. Anyway, we had such a movigs that I had to meet people in 4 cities.
"Such a good moments", 🤔?
8:54
Friends are so important to being a happy child at primary school. I remember that I was always happy going to school because there were my friends. We had such a good moments that I remember it sometimes. Anyway, we had such a movigs that I had to meet people in 4 cities.
"Important to being", 🤔?
8:55
When we are young friends are always one of the most important things we have. I remember when one of my best friends and I were playing together at PE that we were so happy. Also i have such a good memories celebrating my birthday at school with all my friends and classmates.
"Such a good memories", 🤔?
8:55

Results

What are university EFL learners' **perceptions** (i.e., satisfaction levels, feeling of learning and engagement with feedback) of receiving feedback for grammar practice through WhatsApp?

To what extent do these perceptions differ depending on the type of feedback received: metalinguistic explanations, reformulations or repetition prompts?

Satisfaction levels

		Metalinguistic explanations (*n*=29)	**Reformulations** (*n*=29)	**Repetition prompts** (*n*=20)	**Total** (*N*=78)
Satisfaction with type of feedback	*M*	**5.86**	4.90	5.60	5.44
	SD	.351	.817	.598	.749
	95% CI	[5.73, 6]	[4.59, 5.21]	[5.32, 5.88]	[5.27, 5.60]
Feedback timing	*M*	**5.79**	5.55	5.75	5.69
	SD	.491	.632	.550	.565
	95% CI	[5.61, 5.98]	[5.31, 5.79]	[5.49, 6.01]	[5.56, 5.82]
Feedback helpfulness	*M*	**5.69**	4.83	5	5.19
	SD	.471	.928	.858	.854
	95% CI	[5.51, 5.87]	[4.47, 5.18]	[4.60, 5.40]	[5, 5.38]

1 = Extremely dissatisfied / unhelpful
6 = Extremely satisfied / helpful

Feeling of learning and engagement with feedback

		Metalinguistic explanations (*n*=29)	**Reformulations** (*n*=29)	**Repetition prompts** (*n*=20)	**Total** (*N*=78)
Feeling of learning	*M*	**5.03**	4.59	4.35	4.69
	SD	.865	1.05	1.27	1.07
	95% CI	[4.71, 5.36]	[4.19, 4.99]	[3.76, 4.94]	[4.45, 4.93]

1 = Extremely low / 6 = Extremely high

		Metalinguistic explanations (*n*=29)		**Reformulations** (*n*=29)		**Repetition prompts** (*n*=20)		**Total** (*N*=78)	
		%	*n*	%	*n*	%	*n*	%	*n*
Did you pay attention to the feedback?	Yes	**100**	**29**	96.6	28	95	19	97.4	76
	No	0	0	3.4	1	5	1	2.6	2
Did you understand the feedback?	Yes	**100**	**29**	96.6	28	**100**	**20**	98.7	77
	No	0	0	3.5	1	0	0	1.3	1
Did you correct the mistakes?	Yes	93.1	27	82.8	24	**100**	**20**	91	71
	No	6.9	2	17.2	5	0	0	9	7

Self-perceived improvement

		Metalinguistic explanations (*n*=29)		**Reformulations** (*n*=29)		**Repetition prompts** (*n*=20)		**Total** (*N*=78)	
		%	*n*	%	*n*	%	*n*	%	*n*
be / get used to	Significant decline	0	0	0	0	0	0	0	0
	Slight decline	3.4	1	3.4	1	**25**	**5**	9	7
	Slight improvement	55.2	16	**62.1**	**18**	60	12	59	46
	Significant improvement	**41.4**	**12**	34.5	10	15	3	32	25
less / the least + adj.	Significant decline	0	0	0	0	0	0	0	0
	Slight decline	6.9	2	**24.1**	**7**	10	2	14.1	11
	Slight improvement	51.7	15	48.3	14	**85**	**17**	59	46
	Significant improvement	**41.4**	**12**	27.6	8	5	1	26.9	21
so / such	Significant decline	0	0	0	0	5	1	1.3	1
	Slight decline	**20.7**	**6**	13.8	4	15	3	16.7	13
	Slight improvement	41.4	12	**62.1**	**18**	55	11	52.5	41
	Significant improvement	**37.9**	**11**	24.1	7	25	5	29.5	23

Results

What are university EFL learners' perceptions (i.e., satisfaction levels, feeling of learning and engagement with feedback) of receiving feedback for grammar practice through WhatsApp?

To what extent do these perceptions **differ depending on the type of feedback** received: metalinguistic explanations, reformulations or repetition prompts?

Satisfaction levels and feeling of learning

Kruskal-Wallis tests revealed that:

- Satisfaction with type of feedback
  - $X^2(2) = 27.464$, ***p* < .001**
    - Metalinguistic explanations > Reformulations (*p*=.000)
    - Repetition prompts > Reformulations (*p*=.004)
- Feedback timing
  - $X^2(2) = 3.513$, $p = .173$
    - No significant pairwise comparisons
- Feedback helpfulness
  - $X^2(2) = 17.256$, ***p* < .001**
    - Metalinguistic explanations > Reformulations (*p*=.000)
    - Metalinguistic explanations > Repetition prompts (*p*=.010)
- Feeling of learning
  - $X^2(2) = 6.095$, ***p* = .047**
    - Metalinguistic explanations > Repetition prompts (*p*=.025)

Engagement with feedback

Chi-square tests revealed that:

- Paying attention to feedback
  $X^2(2) = 1.329$, $p = .515$ / Phi and Cramer's $V = .131$
  No significant pairwise comparisons
- Understanding feedback
  $X^2(2) = 1.712$, $p = .425$ / Phi and Cramer's $V = .148$
  No significant pairwise comparisons
- Correcting the mistakes
  $X^2(2) = 4.551$, $p = .103$ / Phi and Cramer's $V = .242$
  No significant pairwise comparisons

The results of these chi-square tests may not be totally reliable as there were fewer than five responses in some of the options

Discussion

Overall, **high satisfaction levels** across all three groups:

- WhatsApp proved to be a good tool to provide feedback (Andujar, 2020; Green, 2021; Soria et al., 2020)
- Informal way of learning grammar while it bridging the gap between classroom practice and extramural exposure (Dressman & Sadler, 2020)
- Such satisfaction levels could have increased engagement with the task and motivation (Syairofi et al., 2023)
- WhatsApp helpful for grammar practice, contradicting Ali and Bin-Hady (2019)
- Easy access to others' contributions as good models of language use

The **most valued aspect** was **feedback timing** (almost instantaneous):

- Online feedback consistently found to be more advantageous than offline feedback (e.g., Fu & Li, 2022; Li et al., 2016), also through WhatsApp (Murphy et al., 2023)
- Learners are still aware of their thoughts; easier to amend mistakes (further corroborated by teachers' positive reinforcement when error-free contributions were later made)
- Aligned with Generation Z need for immediate feedback (Isaacs et al., 2020)

Discussion

Metalinguistic explanations group consistently expressed better views than the other two groups:

- Straightforward explanation as to why they had made a mistake
- Easier to grasp the nature of the mistakes and, hence, easier to correct, also corroborated by the highest feeling of learning
- In line with previous research on written corrective feedback (Karim & Nassaji, 2015; Tasdemir et al., 2018; Zhang et al., 2021); now also applicable to MIM contexts

Higher satisfaction of **repetition prompts** vs. reformulations, contradicting Lee (2013):

- Different participants and groups, not taught by the same teacher
- Although procedure was identical, slightly different approach to the project may have explained this difference
- Although reformulations already provide the answer, learners may not have noticed it due to their pre-intermediate level

Repetition prompts' **feeling of learning** significantly lower; the least proficient group of all three (although not significantly), who might have a heavier reliance on external language models, produced by a more proficient peer or the teacher (Dafei, 2007)

Discussion

- Very high rates of **feedback engagement** and **understanding** across all groups:

  Learners' commitment with the task was high, as they needed to pay attention to the feedback to actually complete the task and get course credits → Different outcome if done voluntarily?

  However, not very high self-perceived improvement in some cases (e.g., *so / such* or reformulations and repetition prompts groups) → Mismatch between perceived and actual understanding of the feedback?

  'Try again' phrase might have facilitated error identification and feedback understanding

- Rate of **error correction** was lower in the reformulation group, although overwhelmingly high in general:

  Obligatory nature of the task contributes to these high levels

  Lower rate in reformulations group aligned with their slightly lower satisfaction level

  If feedback is perceived as less helpful, no point in correcting the mistakes to get more feedback

  Reformulations not as clear as explicit feedback and, thus, learners may have failed to know how to correct their mistakes

Limitations and further research

Limitations

- No triangulation of data with GJT scores
- Only three types of feedback analysed
- Feedback only given about the target structures
- Compulsory class activity; perceptions may have been biased?
- Impossible to isolate effects of WhatsApp feedback (PPP approach also used)

Future lines of enquiry

- Exploring other types of feedback (e.g., clarification requests or explicit corrections)
- Analysing learners' views of the intervention *per se*
- Studying whether feeling of learning and learners' preferences correlate with actual grammar learning (if any)
- Adding a control group not exposed to WhatsApp feedback to compare grammar learning and views
- Extending WhatsApp to other areas of foreign language learning (e.g., speaking)

Thank you!

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Engagement with feedback

What helped you to understand the feedback?	**Metalinguistic explanations** (*n*=29)		**Reformulations** (*n*=29)		**Repetition prompts** (*n*=20)		**Total** (*N*=78)	
	%	*n*	%	*n*	%	*n*	%	*n*
"Try again" phrase	24.1	7	**58.6**	**17**	20	4	35.9	28
Feedback *per se*	**75.9**	**22**	31	7	70	14	57.7	45
Previous command of the language	0	0	**6.9**	**2**	5	1	3.8	3
Unclear feedback	N/A		3.4	1	N/A		1.3	1
"Are you sure?" phrase	N/A		N/A		5	1	1.3	1

Why did (not) you correct the mistakes?	**Metalinguistic explanations** (*n*=29)		**Reformulations** (*n*=29)		**Repetition prompts** (*n*=20)		**Total** (*N*=78)	
	%	*n*	%	*n*	%	*n*	%	*n*
Did not know the right way to put it	0	0	**17.2**	**5**	10	2	9	7
I forgot to correct it	**20.7**	**6**	13.8	4	20	4	17.9	14
I had already completed the task once	0	0	6.9	2	**10**	**2**	5.1	4
Ashamed of mistakes	0	0	0	0	0	0	0	0
Further practice	**41.4**	**12**	24.1	7	30	6	33.4	25
Make sure feedback was understood	37.9	11	27.6	8	**45**	**9**	35.9	28
Requirement of the task	10.3	3	34.5	10	**45**	**9**	28.2	22
Interaction was beneficial	**48.3**	**14**	24.1	7	40	8	37.2	29
Did not make any mistakes	13.8	4	13.8	4	**30**	**6**	17.9	14
Did not understand feedback	N/A		6.9	2	N/A		2.6	2

Feedback preferences

		Metalinguistic explanations (*n*=29)		**Reformulations** (*n*=29)		**Repetition prompts** (*n*=20)		**Total** (*N*=78)	
		%	*n*	%	*n*	%	*n*	%	*n*
Would you have preferred a different type of feedback?	Yes	3.4	1	**31**	**20**	20	4	17.9	14
	No	**96.6**	**28**	69	9	80	16	82.1	64

$X^2(2)=7.569$, ***p*=.023** / Phi and Cramer's $V = .312$

'Yes' response → Reformulations ≠ Metalinguistic explanations

What type of feedback would you have preferred?	**Metalinguistic explanations** (*n*=29)		**Reformulations** (*n*=29)		**Repetition prompts** (*n*=20)		**Total** (*N*=78)	
	%	*n*	%	*n*	%	*n*	%	*n*
Clarification request	10.3	3	10.3	3	10	2	10.3	8
Elicitation	34.5	10	17.2	5	40	8	29.5	23
Explicit correction	44.8	13	55.2	16	25	5	43.6	34
Metalinguistic explanation	**72.4**	**21**	**62.1**	**18**	**80**	**16**	70.5	55
Reformulation	27.6	8	44.8	13	45	9	38.5	30
Repetition prompt	17.2	5	17.2	5	60	12	28.2	22
No feedback	17.2	5	10.3	3	0	0	10.3	8
Others	0	0	0	0	0	0	0	0

Satisfaction levels and feeling of learning

Chi-square tests revealed that:

- Satisfaction with type of feedback
  - $X^2(6)=28.160$, ***p*<.001** / Phi=.601; Cramer's *V*=.425
    - 'Extremely satisfied' response → Reformulations ≠ Metalinguistic explanations & Repetition prompts
- Feedback timing
  - $X^2(4)=3.787$, $p=.436$ / Phi=.220; Cramer's *V*=.156
    - No significant pairwise comparisons
- Feedback helpfulness
  - $X^2(8)=21.701$, ***p*=.006** / Phi=.527; Cramer's *V*=.373
    - 'Extremely helpful' response → Reformulations & Repetition prompts ≠ Metalinguistic explanations
- Feeling of learning
  - $X^2(10)=9.919$, $p=.448$ / Phi=.357; Cramer's *V*=.252
    - No significant pairwise comparisons

The results of these chi-square tests may not be totally reliable as there were fewer than five responses in some of the options