



Journal of Emerging Trends in Social Sciences and Humanities

A Double-Blind, Peer-Reviewed, HEC recognized [Y-category](#) Research Journal

E-ISSN: [3006-7898](#) P-ISSN: [3006-788X](#)

Volume 3 Issue 4, 2026, 200-207



Deleting, Generalising and Constructing: How Undergraduate ESL Learners Explain and Exemplify Van Dijk's Macrorules

Zeeshan¹ Dr. Syed Kazim Shah²

¹ MPhil Scholar, Department of Applied Linguistics, Government College University, Faisalabad, Punjab, Pakistan.

Email: raizeeshan1252@gmail.com

² Assistant Professor, Department of Applied Linguistics, Government College University, Faisalabad, Punjab, Pakistan.

Corresponding Author: kazim.shah@gcuf.edu.pk

Article Information

Received:

2026-08-15

Revised:

2026-09-20

Accepted:

2026-10-18

Keywords

Macrostructure Theory; Macrorules; Deletion; Generalisation; Construction; Summary Writing; ESL; Van Dijk.

ABSTRACT

Van Dijk's (1980) macrorules of deletion, generalization and construction define the mechanisms via which readers reduce a text to its global meaning. These have long inspired the teaching of summary writing. The study explored how undergraduate ESL learners, being taught the macrostructure theory in a Discourse Analysis course, described and exhibited the three macrorules. The examination responses of thirty-one students of a public university in Pakistan were coded on a four-point scale (0 to 3) for each macrorule and the scores were analyzed through descriptive statistics, competence bands, Friedman test and Spearman correlations along with qualitative analysis of the responses. Average scores were similar for deletion ($M = 1.77$), generalization ($M = 1.71$) and construction ($M = 1.84$) and did not differ significantly ($\chi^2(2) = 1.20$, $p = .549$). The rules had different distributions: deletion and construction were dispersed over the scale, while 77.4% of learners scored at the appropriate level for generalization and no one scored at the high level. The three measures were substantially intercorrelated ($\rho = .661$ to $.775$, $p < .001$). The composite scores revealed 19.4% of learners in the low band, 45.2% in the intermediate band and 35.5% in the high band. The qualitative analysis produced three patterns: non-engagement with the macrostructure item, definitional treatment without operational illustration, and functional application supported by worked instances. In the strongest answers the functional application was expanded to critical discourse analysis. Instruction should take learners from textbook examples of generalization to independent abstraction.



© 2026 by the authors. Licensee Zeeshan & Shah. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license <https://creativecommons.org/licenses/by/4.0/>

Publisher: Institute for Educating Environmental Resilience and Governance

1. Introduction

Summary writing is generally considered one of the hardest academic literacy tasks at university, as it demands that students read a source, judge the relative importance of its statements, and restate its main message concisely in their own words (Hidi & Anderson, 1986; Kintsch & van Dijk, 1978). Second language writers of English (ESL) face the compounded cognitive and linguistic challenges. Second language writers have been shown to rely on copying and close paraphrase of source words more than first language writers (Keck, 2006). In this sense the challenge of summarization is proposed to be not only about language but about the processes a reader uses to turn detail into a compressed representation of global meaning.

Van Dijk's (1980) theory of macrostructure offers a compelling explanation of these activities. The global meaning or macrostructure of a text is constructed by readers through the application of three macrorules to sequences of propositions: deletion, in which propositions that are unnecessary for the interpretation of subsequent propositions are omitted; generalization, in which a sequence of propositions is replaced by a proposition that subsumes them under a superordinate concept; and construction, in which a sequence of propositions is replaced by a proposition that denotes the global event or state of which they are normal components (van Dijk, 1980; van Dijk & Kintsch, 1983). Hence, the macrorules have been employed as a model of comprehension and as a framework for teaching and assessing summary writing (Brown & Day, 1983; Kintsch, 1998).

Developmental work has suggested that the macrorules are not equally available to learners. Brown and Day (1983) discovered that deletion was acquired early, whereas the operations that included learners providing a superordinate term or inventing a topic sentence were acquired later, and employed reliably only by the most competent summarizers. Similarly, Bereiter and Scardamalia (1987) distinguished between knowledge telling, where novice writers reproduce content in the order it is retrieved, and knowledge transforming, where mature writers reorganize content in relation to a rhetorical goal, a distinction that

parallels the move from deletion toward construction. It is proposed, therefore, that the mastery of the macrorules by the learners may be expected to be unequal and that the operations of generalizing and constructing may be most challenging.

ESL summarization research has identified learners' challenges in selecting main ideas, avoiding the source language, and producing coherent condensations (Keck, 2006; Hidi & Anderson, 1986). However, it is important to point out that there is little emphasis on learners' understanding of the macrorules themselves. That is, are learners who have been taught macrostructure theory able to accurately explain each rule and give an example of their own? This information is pedagogically relevant because the explicit knowledge of the macrorules is presupposed in teaching them as summarization procedures (Brown & Day, 1983). Therefore, the present study investigated the examination replies of undergraduate ESL learners who had learned macrostructure theory in a Discourse Analysis course. It addressed four research issues (van Dijk, 1980):

1. To what extent do learners explain and exemplify the deletion, generalisation and construction rules?
2. Does learners' performance differ across the three macrorules?
3. How are learners' scores on the three macrorules related?
4. What qualitative patterns characterise learners' treatment of the macrorules?

2. Methodology

2.1 Research Design

A descriptive design was adopted, in which the qualitative analysis of learner responses was supported by descriptive and non-parametric statistics (Cohen et al., 2018; Creswell & Poth, 2018). The design was chosen because the aim was to describe the extent and character of learners' understanding of the macrorules and the relationships among them, rather than to test the effect of an intervention or to predict performance from background variables.

2.2 Analytical Framework

The analysis was grounded in van Dijk's (1980) definitions of the three macrorules, as elaborated in van Dijk and Kintsch's (1983) strategic model of discourse comprehension. Deletion was operationalised as the omission of propositions that are not required for the interpretation of the remainder of the text, generalisation as the replacement of a series of specific propositions by a superordinate proposition, and construction as the replacement of a series of propositions by a proposition that denotes the global event or state that they jointly compose (van Dijk, 1980). These definitions provided the criteria against which each learner's explanation and example were judged.

2.3 Participants and Data

The data was comprised of examination scripts of undergraduate students who had been enrolled in a Discourse Analysis course at Government College University Faisalabad, Pakistan, where macrostructure theory had been taught (Cohen et al., 2018). One item in the scripts asked students to talk about macrostructure and its rules. 31 scripts were included in the analysis via purposive

sampling as the study questions needed learners who had received instruction in macrostructure theory. Each script was assigned an anonymous code (R01 to R31) and no names or roll numbers are included in the analysis. It is stressed that the data are responses to an item in the examination on the macrorules, and not summaries from a source text, and therefore they index learners' explicit knowledge of the rules and their exemplification ability rather than their summarization ability per se.

2.4 Coding Procedure

Each response was scored separately for deletion, generalisation and construction on a four-point scale, as shown in Table 1, and the three scores were summed to produce a composite score from 0 to 9, which was classified as low (0 to 3), moderate (4 to 6) or high (7 to 9) (van Dijk, 1980). Scores were assigned on the basis of observable evidence in the response rather than inferences about what the learner might have known. All responses were coded by a single coder, so that inter-coder reliability could not be estimated; internal consistency across the three subscales was nevertheless high (Cronbach's $\alpha = .88$) (Field, 2018).

Table 1: Macrorule coding scale (applied separately to each rule)

Score	Level	Criterion
0	Negligible	The rule is not addressed, or the response bears no relation to it.
1	Minimal	The rule or related terminology is mentioned, but the operation is not explained or is confused with other concepts.
2	Adequate	The rule is correctly explained, typically with a conventional or textbook example.
3	Strong	The rule is accurately explained and applied through an independently generated or theoretically extended illustration.

2.5 Data Analysis

For each macrorule and the composite score, means, standard deviations, medians, and frequency distributions were calculated (Field, 2018). Because the scores are ordinal and derived from the same learners, differences between the three rules were assessed using the Friedman test and relationships between pairs of rules were evaluated using Spearman's ρ . A cross-tabulation of deletion and construction scores was also created. Two respondents (R03 and R07)

answered the macrostructure item in no way, and consequently gave no evidence about the rules themselves. Thus, as a sensitivity check, all analyzes were redone with both excluded ($N = 29$). Qualitative analysis was then performed on the responses in an effort to characterize the patterns underlying the scores. Representative excerpts are provided verbatim, including learners' original spelling and grammar.

2.6 Ethical Considerations

The scripts were secondary data obtained through

the normal assessment process and no extra demands were put on students (Cohen et al., 2018). All the identifying information was removed before analysis and permission to use the anonymized scripts for research purposes was acquired from the Department of Applied Linguistics, Government College University Faisalabad.

Table 2: Descriptive statistics and score distributions by macrorule ($N = 31$)

Macrorule	M	SD	Median	Negligible (0)	Minimal (1)	Adequate (2)	Strong (3)
Deletion	1.77	1.02	2	5 (16.1%)	5 (16.1%)	13 (41.9%)	8 (25.8%)
Generalisation	1.71	0.59	2	2 (6.5%)	5 (16.1%)	24 (77.4%)	0 (0.0%)
Construction	1.84	0.93	2	4 (12.9%)	4 (12.9%)	16 (51.6%)	7 (22.6%)

The three means were relatively close to each other and to the acceptable level of the scale, construction being slightly highest and generalization somewhat lowest (van Dijk, 1980). It should be noted, however, that the distributions were quite different. Deletion and construction were spread across the whole scale, with about a quarter of learners at the strong level and between a quarter and a third at the negligible or minimal levels. Generalization was concentrated at the adequate level (77.4%), with no learner at the strong level. In a nutshell, most learners could explain generalization accurately but no one was found to have used it independently or extended it beyond a typical example.

Table 3: Distribution of learners by composite competence band ($N = 31$)

Band	Composite score	n	%
Low	0 to 3	6	19.4
Moderate	4 to 6	14	45.2
High	7 to 9	11	35.5
Total		31	100.0

The composite mean was 5.32 ($SD = 2.34$, median = 6), and no learner obtained the maximum composite score of 9, the highest observed score being 8 (Field, 2018). Furthermore, the low band contained two learners with a composite score of zero and four learners with scores between 1 and 3, so that a small but distinct subgroup demonstrated little or no understanding of the macrorules.

3. Results

3.1 Performance on Each Macrorule

The descriptive statistics and score distributions for the three macrorules are presented in Table 2 (Field, 2018).

3.2 Differences among the Macrorules

The Friedman test indicated that the differences among the three macrorules were not significant, $\chi^2(2) = 1.20$, $p = .549$ (Field, 2018). Consequently, the data do not support the conclusion that any one macrorule was explained significantly better or worse than the others at the level of central tendency; the distinctive feature of generalisation lay in its restricted range, with a ceiling at the adequate level, rather than in a lower mean.

3.3 Composite Competence

The distribution of composite scores across the three competence bands is shown in Table 3 (Cohen et al., 2018).

3.4 Relationships among the Macrorules

All three pairs of macrorules were strongly and significantly correlated: deletion and generalisation, $\rho = .661$; deletion and construction, $\rho = .683$; and generalisation and construction, $\rho = .775$ (all $p < .001$) (Field, 2018). The cross-tabulation of deletion and construction scores is presented in Table 4.

Table 4: *Cross-tabulation of deletion and construction scores (N = 31)*

Deletion	Construction 0	Construction 1	Construction 2	Construction 3	Total
0	4	1	0	0	5
1	0	1	4	0	5
2	0	2	8	3	13
3	0	0	4	4	8
Total	4	4	16	7	31

Most learners who obtained a negligible score for deletion also achieved a negligible score for construction, and no learner scored at the strong level for deletion but scored below the sufficient level for construction (Brown & Day, 1983). This trend suggests a close association, in this sample, between the ability to differentiate essential from inessential propositions and the ability to integrate propositions into a macro-proposition. With the two non-engaging respondents removed (N=29), the means increased slightly (deletion, M=1.90; generalization, M=1.83; construction, M=1.97) and the differences between the rules remained non-significant ($\chi^2(2)=1.20$, $p=.549$). The correlations, although attenuated, remained moderate to strong and significant ($\rho=.557$ to $.707$, $p<.01$), suggesting that the non-engaging respondents contributed to, but did not account for, the strength of the associations.

3.5 Qualitative Patterns

The qualitative analysis indicated that learners' treatment of the macrorules fell into three broad patterns, which corresponded closely to the composite bands (van Dijk & Kintsch, 1983). The first pattern, non-engagement, was shown by two learners (R03 and R07), who did not address the macrostructure item at all, although R03 answered other items on the examination competently; it is suggested that their scores reflect a content-specific gap or a choice not to attempt the item rather than a general weakness in academic writing.

The second pattern, definitional treatment without operational illustration, was shown by four learners (R12, R16, R17 and R18), who used the terminology of discourse analysis but did not explain or demonstrate the operations of omission, superordination or synthesis (van Dijk, 1980). In

some cases, macrostructure was described only in the most general terms, as in R16's response:

"Discourse structure Can only be classified not macro-structure. Micro means the meaning of a tert reto at two level we use a text at Sentence Level while macro-structure means analyze a whole text." (R16)

In other cases, the response drifted towards broader themes of critical discourse analysis, such as power and social order, without addressing the macrorules, as in R12's discussion of how discourse "contributes to the construction of social order, power relations, and institutions" (Fairclough, 1992).

The third pattern, functional application, was shown by the remaining 25 learners, who explained the macrorules correctly and typically supported their explanations with examples (van Dijk, 1980). For generalisation, the characteristic response combined an accurate definition with a conventional example of superordination:

"Generalization: Replacing sequence of specific propositions to higher, super propositions. e.g., He bought apples, bananas & mangos. Generalize: He bought fruit." (R02)

Construction was often illustrated through a condensation of a short narrative sequence, as in R01's summary of a sequence in which heavy rain destroyed buildings and roads and caused deaths: "Heavy rain in Lahore left the great impact on economy." (R01), a condensation that corresponds closely to van Dijk and Kintsch's (1983) account of construction as the replacement of component propositions by a proposition denoting the global event. In the strongest responses, the macrorules were extended to the ideological concerns of critical discourse analysis,

as in R06's treatment of deletion as a means of backgrounding agency and of construction as a means of reorganising ideological schemas:

"Nominalisation is done to erase responsibility. It is done through several ways: Deletion: omit concept/agent to background it." (R06)

"Construction: ideological schemas are reconstructed, one broken down into new ideas. This is used to foreground and background ideas." (R06)

It is pertinent to note that the generalisation responses varied far less than those for deletion and construction, typically consisting of a correct definition accompanied by a conventional textbook example of the kind illustrated by R02, in which specific items are replaced by a superordinate term, whereas the illustrations of deletion and construction varied more widely in content and sophistication (Brown & Day, 1983). This uniformity is consistent with the quantitative ceiling observed for generalisation and suggests that learners' knowledge of this rule was anchored in conventional, taught examples.

4. Discussion

As to the first and second study questions, the learners were found to have a modest general comprehension of the macrorules. The mean scores for all three rules were close to the sufficient level, with no significant difference among the three macrorules (van Dijk, 1980). This conclusion qualifies the anticipation based on developmental studies that deletion should be substantially easier than the procedures requiring superordination or synthesis (Brown & Day, 1983). However, the comparison is suggested to be made with caution since Brown and Day investigated the use of the rules in producing summaries whereas the present data concern learners' explanations of the rules. It is plausible that the rules differ less in how readily they can be explained than in how readily they can be applied to an unfamiliar text.

The noteworthy finding for generalization was not a lower mean but a ceiling: almost four in five learners described the rule adequately, but no learner used it independently or extended it beyond a conventional example (Brown & Day, 1983). Such a pattern is taken as indicative of a correct but superficial understanding of

generalization, based on traditional textbook examples of superordination. It is consistent with Bereiter and Scardamalia's (1987) observation that the transformation of content into new conceptual categories is characteristic of more mature writers. Moreover, because generalization involves the learner supplying a superordinate notion which might not be present in the source, it is the macrorule that most relies on lexical and conceptual resources, and so may be more challenging for second language learners (Keck, 2006).

As for the third research question, the high intercorrelations and the good correspondence between deletion and construction shown in Table 4 suggest that the three macrorules were understood as a related set rather than as separate items of knowledge (van Dijk & Kintsch, 1983). Note that the correlations may be due to general factors such as general preparation for the examination and that the two non-engaging learners contributed to their strength yet the linkages remained moderate to strong even when both were removed. Moreover, the relation between deletion and construction is in accordance with the theoretical notion that construction involves the prior recognition of the propositions that are necessary for the global meaning of a text (van Dijk, 1980).

The three qualitative patterns in response to the fourth research question suggest that the obstacles faced by the learners were of different kinds and thus distinct responses were required (Hidi & Anderson, 1986). Non-engagement means that the content is not covered or the examination strategy does not include it; definitional treatment means that the terminology is acquired but the underlying operations are not; and functional application means that the rules are understood, although only at the level of a conventional example. The application of the macrorules to the ideological functions of deletion and reconstruction in the strongest responses is remarkable, as it reveals that some learners linked van Dijk's cognitive model of macrostructure with the critical issues of discourse analysis (Fairclough, 1992; van Dijk, 1980).

This has several pedagogical consequences. First, instruction on generalization should move beyond traditional examples of listing and superordination to tasks in which learners supply superordinate

concepts for authentic academic passages, so that knowledge of the rule becomes generative rather than reproductive (Brown & Day, 1983). Second, since deletion and construction seem to be closely related, instruction might profitably teach them together, asking learners first to identify the propositions that are essential to the global meaning of a text and then to integrate those propositions into a single macroproposition (van Dijk & Kintsch, 1983). Third, because stating a rule is not the same as using it, summarization evaluation should mix items that elicit knowledge of the macrorules with tasks that require learners to apply them to unseen texts (Hidi & Anderson, 1986).

5. Conclusion

The present study investigated how undergraduate ESL learners who had studied macrostructure theory explained and exemplified van Dijk's (1980) macrorules. Overall their understanding was found to be moderate and broadly similar across deletion, generalization and construction, but generalization was characterized by a ceiling at the level of conventional examples (Brown & Day, 1983). To summarize, learners could generally state what the macrorules were, a considerable minority could show deletion and

construction independently, and none could do so for generalization. The three principals were intimately connected and learners' handling of them fell into three qualitatively diverse patterns of non-engagement, definitional treatment and functional application.

There are several constraints to note. The sample was small and from one course and one institution. All responses were coded by one coder so it was not possible to establish inter-coder reliability. The data are responses to an examination item about the macrorules rather than summaries of source texts so they measure learners' explicit understanding of the rules rather than their summarization performance (Cohen et al., 2018; Keck, 2006). The study therefore does not reveal whether learners who can explain the macrorules are also able to apply them in summarizing. Future research should therefore use two independent coders and report chance-corrected agreement. Controlled source text summaries should be collected as well as measures of macrorule knowledge. It should be investigated whether explicit instruction in generalization and construction improves the quality of learners' summaries (Brown & Day, 1983; Hidi & Anderson, 1986).

Conflict of Interest

The authors showed no conflict of interest.

Funding

The authors did not mention any funding for this research.

References

- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Lawrence Erlbaum.
- Brown, A. L., & Day, J. D. (1983). Macrorules for summarizing texts: The development of expertise. *Journal of Verbal Learning and Verbal Behavior*, 22(1), 1-14. [https://doi.org/10.1016/S0022-5371\(83\)80002-4](https://doi.org/10.1016/S0022-5371(83)80002-4)
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
- Fairclough, N. (1992). *Discourse and social change*. Polity Press.
- Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). Sage.
- Hidi, S., & Anderson, V. (1986). Producing written summaries: Task demands, cognitive operations, and implications for instruction. *Review of Educational Research*, 56(4), 473-493. <https://doi.org/10.3102/00346543056004473>
- Keck, C. (2006). The use of paraphrase in summary writing: A comparison of L1 and L2 writers. *Journal of Second Language Writing*, 15(4), 261-278. <https://doi.org/10.1016/j.jslw.2006.09.006>
- Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge University Press.
- Kintsch, W., & van Dijk, T. A. (1978). Toward a model of text comprehension and production. *Psychological Review*, 85(5), 363-394. <https://doi.org/10.1037/0033-295X.85.5.363>
- Van Dijk, T. A. (1980). *Macrostructures: An interdisciplinary study of global structures in discourse, interaction, and cognition*. Lawrence Erlbaum.
- Van Dijk, T. A., & Kintsch, W. (1983). *Strategies of discourse comprehension*. Academic Press.