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SUMERIAN EXTRACT TABLETS AND SCRIBAL EDUCATION

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In recent years there has been renewed interest in scribal education in ancient Mesopotamia.[1] Much of this research has focused on the early-second millennium, or the period known as the Old Babylonian period (ca. 2000–1595 B.C.),[2] a time for which there is abundant evidence for scribal training. Earlier treatments of this topic, like Kramer's "The Sumerian School: A Pre-Greek System of Education," (1951). Falkenstein's "Die babylonische Schule" (1953) and especially Sjöberg's seminal "The Old Babylonian Edubba" (1975), were based primarily on a group of Sumerian literary compositions about the Eduba, the academy or institution in which scribes were trained. But it is now generally acknowledged that these texts contain idealized accounts of the daily life and activities of scribal pupils, and are not reliable sources for reconstructing the educational practices of this time.[3] By considering additional sources of evidence, such as archaeological context,[4] and correlations in the groupings of different types of compositions on scribal exercise tablets as indications of the sequence of the scribal curriculum,[5] new insight has been gained into how scribes were taught the Sumerian language and the cuneiform signs used to write it.

One particularly productive approach has been the study of tablet typology. Along with the archaeological contexts in which they were discovered and the quality of their script, the shape and format of tablets containing Sumerian lexical lists, collections of "proverbs," and literary compositions indicate clearly that many, if not all of the sources for these texts are school exercises. The classification of these tablets into different types also sheds

1. I would like to thank J. Cooper and D. Fleming for their helpful comments and criticisms during the preparation of this article.

2. See Velhuis 2000 for the Middle Babylonian period, and Gesche 2000 and Veldhuis 2003 for the Neo-Babylonian period.

3. For a more detailed critique of the so-called Edubba texts for understanding scribal practices and a description of the shift, in recent studies of scribal education, away from the study of these texts toward other types of evidence see Robson 2001: 39. A more critically informed use of these compositions to identify aspects of scribal training can be found in Robson 2002: 348–52. For a discussion that includes a list of all the compositions that have been classified as "Edubba texts" with additional references to editions and previous treatments of these texts as sources for reconstructing scribal education see Delnero 2006: 65–81.

4. Studies of the archaeological contexts for scribal training include Robson 2001 for Nippur; Charpin 1986 and Brusasco 1999–2000 for Ur; and Tanret 2002 for Sippar. For a detailed synthesis of the archaeological evidence for scribal education at these and other cities in Mesopotamia such as Isin, Kish, Babylon, and Uruk with further references see Delnero 2006: 35–64; for a more concise summary of some of this data see Robson 2002: 329. All of the contexts in which scribal exercise tablets were discovered suggest that scribes were trained in small groups in private houses during this period and not in large institutional buildings, like modern schools, as was previously assumed.

5. In a pioneering study using this approach, the sequence of the first, or elementary stage of the scribal curriculum, when scribes copied sign and thematic word lists to learn cuneiform signs, their phonetic values, and vocabulary, was reconstructed by Veldhuis (1997: 40–63). Veldhuis's reconstruction served as the basis for identifying the sequence of texts that were learned in the intermediate and advanced stages of the scribal curriculum, in which literary compositions were copied and studied. These two stages were examined by Tinney (1999) and Robson (2001), discussed in more detail below. In all of these studies, the sequence in which specific compositions are grouped together on sources with more than one text or across a series of tablets plays a significant role, along with other factors, such as pedagogical logic and identical groupings in literary catalogues, in determining the order in which specific texts were copied during each stage of the scribal curriculum. For a complete list of the sequence of exercises that were learned in Veldhuis's reconstruction of the elementary phase of the scribal curriculum see Veldhuis 1997: 63, and the modified versions of this list presented in tabular form in Robson 2001: 47 and 2002: 331.

light on the function of these exercises. By analyzing the physical characteristics and the formal features of scribal exercise tablets, it has been possible to distinguish between the texts and exercises that were copied during the elementary phase of the scribal curriculum from those that were learned at a later stage and to gain insight into the methods that were employed to train scribes.

In his study of the sources for the Old Babylonian versions of the lexical lists from Nippur, Civil identified four basic "types" of tablets, grouped according to their shape and format:

> Type I. Large tablets, cylinders, or prisms, with long sections of the series and no extraneous material. [...]
>
> Type II. The obverse contains a two-column calligraphic exercise; the left column is the instructor's model, the right, rarely preserved, the student's copy (= type II/1). The excerpt from the series is about ten to twenty lines long. The reverse contains an excerpt from [...] or another series in four or five columns (occasionally more) running from right to left (= type II/2).
>
> Type III. Small one-column tablets with an excerpt from the series.
>
> Type IV. Small lentil-shaped tablets.[6]

Although Civil's typology was conceived primarily for the purpose of classifying the sources for the lexical lists from Nippur, it can also be applied to the sources for compositions belonging to different textual genres. Similar tablet types are attested for literary texts, the proverb collections, and also, to a large extent, mathematical tables, problems, and model contracts.[7] Furthermore, comparable types have been found at Ur, Susa, Sippar, Uruk, Kish, and most of the other places where Old Babylonian exercise tablets have been discovered. Even after taking into account regional differences in the exact shape and format of these types, as well as the presence of a few tablet types that were not in use at Nippur at some sites and the absence of some of the Nippur types at others, this typology remains generally applicable to tablets from all of these sites.

Civil's typology, with slight modifications and elaborations, has provided a valuable framework for examining scribal education and determining the relative sequence in which different types of exercises were learned. Veldhuis's study of elementary scribal training at Nippur was one of the first attempts to utilize tablet typology systematically as a source of evidence about the Old Babylonian scribal curriculum (Veldhuis 1997). Studying the sources for thematic lexical lists, and the list of wooden objects specifically, Veldhuis observed that many of the duplicates for these texts were Type II tablets. Since other compositions that can be identified as basic exercises, like the sign list "Syllable Alphabet B," the syllabary "Tu-ta-ti," and the lists of personal names also occur on Type II tablets, it is evident that this tablet format was commonly used during the elementary phase of scribal training (Veldhuis 1997: 32–37, 40–41). In addition to Type II tablets, exercises from this stage of the curriculum are also frequently attested on Type IV tablets. These tablets (also referred to as "lentils") typically contain one to two lines of a particular text, written first as a model in a careful and accurate script, and followed by a copy of the same lines in writing that "varies from bad to excellent" (Falkowitz 1983–1984: 21). The model lines were almost certainly written by the instructor, and then copied by the pupil. The difference in the quality of the script in the model text and the often inferior quality of the copy is one of many indicators that these lines were copied by beginning scribes. Another indication that Type IV tablets were used for elementary exercises is their content. In a survey of 350 Type IV tablets from Nippur, Falkowitz compiled a list of all of the texts that occur on these sources (Falkowitz 1983–1984). Nearly all of these are texts that Veldhuis identified as exercises that were learning during "Phase 1," or the elementary phase of the curriculum (Falkowitz 1983–1984: 21). Type IV tablets, along with Type II tablets therefore seem to have been the primary tablets types that were used during the initial stages of scribal training.

6. Civil 1979: 5. See also Civil 1969: 27–28 and 1995: 2308, which include additional "types" to describe the sources for lists from later periods.

7. For a detailed typology of mathematical texts see Robson 1999: 174–79.

The observation that Type II and IV tablets were used for elementary exercises has led to the identification of four additional texts that appear to have been learned early in the sequence of the scribal curriculum. Tinney has shown that the literary compositions Lipit-Eštar B (ETCSL 2.5.5.2),[8] Iddin-Dagan B (ETCSL 2.5.3.2), Enlil-bani A (ETCSL 2.5.8.1), and Nisaba A (ETCSL 4.16.1), which belong to a group of texts he called the "Tetrad," were probably also copied near the beginning of scribal training (Tinney 1999). The first text in the Tetrad, Lipit-Eštar B, was first identified as an elementary exercise by Vanstiphout, in part by observing that the text seems to consist almost entirely of simple sentences with a relatively large number of basic syntactical and grammatical constructions of various types (Vanstiphout 1978: 51; 1979: 121–23), but also because many of the sources for this text are Type II and Type IV tablets (Vanstiphout 1978: 51). Tinney proposed that the Tetrad was learned at an intermediate stage between the elementary and advanced phases of the scribal curriculum since the other three texts also occur on these two tablet types, and the four compositions appear together on a series of four six-sided prisms, presumably written by the same scribe, as well as in partial sequence on collective tablets (Tinney 1999: 162–63 with notes 23–24).

With the exception of the compositions in the Tetrad, however, literary compositions are only rarely attested on Type II and Type IV tablets. In contrast to sign lists, thematic lexical lists, and other elementary exercises, literary compositions, which Veldhuis argued were learned in the second or advanced phase of the curriculum, occur instead primarily on Type I and Type III tablets. Type I tablets with literary texts are typically divided into four columns, and contain a single composition in its entirety; though variant tablets of this type with more than four columns, and, in some cases, more than one composition (collective tablets) also exist. On the obverse, columns one and two are oriented from left to right; but on the reverse columns three and four are read from right to left. By contrast, Type III tablets with literary compositions have only one column and contain a single extract from a longer text. These sources are typically inscribed on both the obverse and the reverse, and generally contain twenty- to fifty-line extracts of a given text; though tablets of this type that are only inscribed on the obverse, or that have more than sixty lines are also attested. In colophons Type III tablets are sometimes identified with the Sumerian term im-gid$_2$-da.

The formal characteristics of Type I and Type III tablets with literary texts are similar, but not identical to those with lexical compositions. Unlike multi-column Type I lexical tablets, which are generally square-shaped, usually have more than four columns, and contain wider lines, with larger, less compactly written signs, for example, Type I literary tablets tend to be longer than they are wide, and to have narrower lines, with smaller signs that are written more closely together. Similarly, Type III lexical tablets are typically shorter, containing extracts of between ten and fifteen lines, and more rectangular, with wide lines and relatively large signs, whereas literary Type III tablets, while also rectangular, are often pillow-shaped, with rounded edges, and have lengthier extracts with narrower, more compact lines.

To account for these deviations, Tinney extends Civil's typology, classifying Type I literary tablets as "multi-column tablets" (Type M) and Type III literary tablets as "single-column tablets" (Type S; Tinney 1999: 160). In general, however, there appear to be more similarities than differences between these two types of lexical and literary sources. Moreover, many of the slight formal differences probably reflect the type of texts they contain, not the function of these tablet formats. Lexical entries are generally shorter and tend to have fewer signs than the lines in literary texts, which could account for why tablets with these texts are usually divided into more numerous, narrower columns, than the sources for literary texts, which have fewer columns with longer lines. Since assigning different labels to Type I and Type III literary tablets could be thought to imply that there are substantial qualitative differences between the sources for literary and lexical texts, in the absence of evidence for such differences, it is

8. Unless otherwise indicated, all references to the titles and numbers of specific literary compositions are the titles and numbers used to label these texts by the Electronic Text Corpus of Sumerian Literature (ETCSL; online: http://etcsl.orinst.ox.ac.uk).

reasonable to assume that Type I and III tablets had the same function for the two types of texts and to maintain the same designations for both groups when referring to these sources.

Although Veldhuis has demonstrated the didactic function of Type II and IV tablets during the elementary phase of the curriculum, less is known about the pedagogical function of Type I and III tablets. Since these two tablet types were the primary formats used during the second or advanced phase of the scribal curriculum, understanding their function would also provide insight into the methods of training that were used at this stage. Furthermore, most of the known duplicates of Sumerian literary compositions occur almost exclusively on tablets of both of these types, a factor that has a direct bearing on why these sources were produced and how scribes were trained, but that is nonetheless frequently neglected in studies of Sumerian literature. In this article, the function of Type III tablets as tools for training scribes will be considered in more detail. I will argue that these tablets were used together with Type I tablets at different stages in the process of learning Sumerian literary works.

The Distribution of Type III Extract Tablets

Although many of the duplicates of Sumerian literary compositions are Type III sources, and the use of extract tablets is frequently noted in editions and discussions of these texts, little attention has been devoted to determining their function. One question that has been considered, however, is whether the groupings of lines on these types of tablets reflect meaningful divisions. In an early edition of the text Enlil in the Ekur (ETCSL 4.05.1) Falkenstein argued that many of the Type III sources, which he calls *einkolumnig* tablets, contain extracts that represent distinct narrative or poetic units (Falkenstein 1959: 9–10). Assuming that this composition was arranged in strophes of two to five lines, he noted that most of the Type III sources that he knew began at the beginning and concluded at the end of a strophe.[9] He distinguished these sources from the four exceptions that began or ended in the middle of a strophe, which he identified as *Schülerabschriften* (Falkenstein 1959: 9). While the notion that extract tablets reflect the division of compositions into poetic units has not been widely adopted, the distinction between Type III tablets that were written as scribal exercises and those with less arbitrary extracts was maintained in many of the text editions that followed Falkenstein's study. Hallo and van Dijk identified several groups of extract sources of The Exaltation of Inana in their edition of this composition (ETCSL 4.07.2). These include four groups of three tablets with approximately fifty lines, and three groups of five tablets with approximately thirty lines from different sections of this 153-line text (Hallo and van Dijk 1968: 38–39). The extract tablets in these groups, which Hallo and van Dijk called "three-tablet" and "five-tablet recensions," are contrasted with extract tablets of thirteen to twenty-one lines that do not seem to have been arranged as a series, interpreted as school exercises with "the daily pensum of advanced students" (Hallo and van Dikj 1968: 39). Similar groups of sources

9. At the time Falkenstein was preparing his edition of Enlil in the Ekur twenty-two exemplars were known to him, of which eighteen are Type III tablets. At present at least eighty-nine duplicates, forty-eight of which are Type III tablets, have been identified. For a list of these sources see Delnero 2006: 2108–14. The additional sources complicate the evidence that the extract tablets for this composition begin and end at the beginnings and endings of groups of lines Falkenstein considered to be strophes. In support of this theory Falkenstein counted five sources that begin with the first line of a strophe, three sources that end with the last line of a strophe, two sources that end with the first line of a new strophe, and four exceptions (which he identified as school tablets). When the sources not known to Falkenstein are added there are a total of seven sources that begin with the first line of a strophe, six that end with the last line of a strophe, *ten* sources that end with the first line of a new strophe, *seven* sources that do not begin at the beginning of a strophe, and *four* sources that end in the middle of a strophe (two of which also do not begin at the beginning of a strophe). The new totals increase the number of sources that are consistent with Falkenstein's theory by only five sources, but increase the number of exceptions to thirteen sources. If Falkenstein is correct, however, about the first lines of strophes occurring at the end of sources being *Folgeweiser* (lines that indicate the first line of the next tablet in a series), then the number of exceptions decreases to seven, or three more exceptions than he noted.

for Nanše A (ETCSL 4.14.1) and The Curse of Agade (ETCSL 2.1.5) were classified as "editions" by Heimpel and Cooper in their publications of these compositions.[10]

The identification of a series of connected tablets that collectively contain an entire composition as a "recension," however, has been largely rejected. In more recent editions of Sumerian literary compositions these terms generally are no longer used to classify groups of extract tablets. The primary basis for this rejection is the recognition that all, or nearly all of the preserved sources for Sumerian literary texts, including the extract tablets that seem to be part of a series, are school tablets and were not intended to be definitive versions of particular compositions as such terms imply. This position was first proposed by Civil in his edition of The Farmer's Instructions (Civil 1994; ETCSL 5.6.3). Observing that the number of lines chosen for scribal extract tablets is not consistent and that the partitioning of literary texts does not appear to have been the result of a standard process, he argued that "terminology such as 'three-tablet recension' does not ... adequately reflect these fluid conditions, suggesting as it does some kind of formal, 'official' partition" (Civil 1994: 12). Michalowski presents similar reservations about distinguishing between tablets containing scribal exercises tablets and "official" editions in his edition of The Lamentation over the Destruction of for Sumer and Ur (ETCSL 2.2.3) and by Tinney in his edition of Nippur Lament (ETCSL 2.2.4) who both emphasize that the extract sources for these compositions are school texts, and follow Civil in not referring to tablets of this type as "recensions" or "editions" (Michalowski 1989: 18; Tinney 1996: 88–89).

While it is now broadly accepted that most extract tablets, including those that seem to be part of a series, are scribal exercises, the function of these types of sources as tools for training scribes has yet to be examined. One reason this question may not have been addressed is that discussions of Type III tablets, including those cited above, are typically confined to individual compositions like The Exaltation of Inana, The Cursing of Agade, The Lamentation over the Destruction of for Sumer and Ur, and The Farmer's Instructions, without considering their function more generally across the corpus of Old Babylonian Sumerian literary compositions as a whole. As a result, the function of scribal extract tablets has not been considered in relation to the other tablet types that were used to copy Sumerian literary texts. One way of approaching the question of how Type III sources were used to train scribes is therefore to consider their distribution with more than one composition and with respect to different tablet types.

In addition to Type III tablets and multi-column Type I tablets, literary compositions also occur on prisms. Generally prisms with literary texts have between four to six sides, and contain a single composition; though prisms with more than one text are also attested. The number of sides a prism contains seems to be contingent on the length of the text or texts that appear on it. Although prisms are also classified as Type I sources in Civil's typology, they are formally quite distinct from multi-column tablets, which Civil grouped in the same category. The quality of the texts inscribed on prisms can be substantially inferior to the textual quality of the other types of sources with the same composition, indicating that prisms either had a different function or were copied by less advanced pupils.[11] Prisms should therefore be viewed as distinct from multi-column Type I tablets and classified separately, following Tinney, who designates them as "Type P" sources (Tinney 1999: 160).

10. Heimpel 1981: 70–72; Cooper 1983: 44–45. Note, however, that Cooper also raised the question of whether a series of connected extract tablets are school tablets instead of editions, stating: "single-column excerpt tablets of ('The Curse of Agade') and other Old Babylonian Sumerian literary compositions were parts of a series of tablets written by individual scribes or students containing the entire text, or whether they were just random excerpts done as exercises." While Cooper does not directly commit to this position, and recognizes at least one group of sources that might represent a multi-tablet edition of The Cursing of Agade, his raising the question anticipates the current consensus about the function of extract tablets as scribal exercises, discussed in more detail below. It should also be noted that Heimpel and Cooper may use the term "edition" to refer more generally to any complete grouping of Type III sources, without necessarily suggesting that these grouping contain definitive versions of a composition, in contrast to Hallo and van Dijk's usage of the term "recension," which implies a more authoritative redaction of a composition.

11. Klein 1981: 170. For a more detailed discussion of prisms, with additional references to the inferior quality of their content, see Veldhuis 1997: 29–32.

Although almost all of the sources for literary compositions can be classified as Type I tablets, Type III tablets, or prisms, there are a few exceptions. In his survey of Type II tablets from Nippur, Veldhuis identified a relatively small number of literary texts that are attested on sources of this type (see Veldhuis 1997: 65–66 for a complete list). Two of these, Lipit-Eštar B and Enlil and Namzitara (ETCSL 5.7.1) occur on more than one tablet with this format, but the instances in which other literary texts are found on Type II tablets appear to be limited. One isolated example is Lipit-Eštar A (ETCSL 2.5.5.1) which occurs on the reverse of a Type II tablet and contains an extract from the lexical list "Proto-Aa" on the obverse (CBS 10988). Since according to Veldhuis's interpretation of the pedagogical function of Type II tablets the text on the reverse was learned earlier in the scribal curriculum than the text on the obverse (Veldhuis 1997: 32–37), this source would imply that Lipit-Eštar A was learned before "Proto-Aa"—a possibility that is at variance with the assumption that literary texts were learned later than lexical compositions. In the absence of similar evidence of this type, however, it seems more likely that this tablet is anomalous, and not necessarily representative of the sequence of the scribal curriculum as a whole. In his survey, Veldhuis also identifies a source for the composition The Song of the Hoe (ETCSL 5.5.4) as a Type II tablet (CBS 9856; Veldhuis 1997: 66). A closer examination of this tablet though, reveals that this source is probably not a Type II tablet, but instead a Type I tablet whose obverse was later reused to copy an extract of "Proto Aa." The reverse contains columns three and four of The Song of the Hoe, and the obverse, which must have originally contained columns one and two of this composition now contains an extract from "Proto Aa" oriented at right angles to the text on the reverse. Thus, when the extract of "Proto Aa" is held as read, and the tablet is turned over in the normal way (around the horizontal axis), the reverse must then be rotated 90 degrees to the left for the columns on the reverse to be running, as they should, from top to bottom, indicating that this extract was probably added after columns one and two of The Song of the Hoe had already been erased.

Type IV tablets with literary texts are less common, but are also attested. In addition to the four compositions in the Tetrad, which, as noted above, all occur on Type IV tablets, presumably because they were learned before the advanced phase of the scribal curriculum, there are isolated attestations of other literary compositions on Type IV sources. In Falkowitz's survey of Type IV tablets from Nippur (see above), the only identifiable literary compositions besides the texts in the Tetrad are "Nothing is precious" (Alster 2005: 266–87), "An elegy on the death of Nannaya" (ETCSL 5.5.2), and the Emesal hymn Lisin A (unpublished; see Civil 1974–1977: 67). Examples from other sites include a Type IV source from Ur with lines from Enlil in the Ekur, written together with a Sumerian proverb (*UET* 6/2, 371), and a Type IV tablet from Susa (*MDP* 18, 49), with an excerpt from Gilgameš and Huwawa (Version A; ETCSL 1.8.1.5). Among the Type IV tablets from the *Scherbenloch* at Uruk (see Cavigneaux 1996: 1–5), there are also several with unidentified compositions that may be literary texts (Cavigneaux 1996: 97–98; for a list of these sources, see Tinney 1999: 162 n. 21). One of these is a partly preserved extract from a royal hymn, which might be line 21 of Lipit-Eštar A.[12] Some others contain phrases that are characteristic of Sumerian royal hymns (see, e.g., texts 227, 230, 231, and 233 in Cavigneaux 1996). With the exception of the texts from the Tetrad, however, Type IV tablets seem to have only infrequently been used for literary compositions.

To determine the tablets types and to analyze and interpret the distribution of the sources a small but representative group of Sumerian literary compositions was selected. The texts that were chosen for this study are from a group of ten compositions known collectively as the Decad. This group comprises the following texts:

12. Text 207 in Cavigneaux 1996. The identification of this source with Lipit-Eštar A was suggested by Tinney (1999: 162 with n. 20), based on the occurrence of -me-en ("I am") at the end of one of the lines and the traces of the signs before it. But since lines ending with "-me-en" are also characteristic of Sumerian royal self-praise hymns in general, including a group of hymns to the ruler Šulgi comprising Šulgi A (ETCSL 2.4.2.01), Šulgi B (ETCSL 2.4.2.02), Šulgi C (ETCSL 2.4.2.03), and Šulgi E (ETCSL 2.4.2.05), the identification of this source with Lipit-Eštar A is not certain. The traces of the signs before "-me-en" do not correspond directly to any of the lines in Lipit-Eštar A and too much of the fragment is broken to provide sufficient evidence that this line is from this composition, and not from another composition with a similar line.

1) *ŠA*: A praise poem of Šulgi (Šulgi A); ETCSL 2.4.2.01.
2) *LiA*: A praise poem of Lipit-Eštar (Lipit-Eštar A); ETCSL 2.5.5.1.
3) *Al*: The Song of the Hoe; ETCSL 5.5.4.
4) *InB*: The Exaltation of Inana (Inana B); ETCSL 4.07.2.
5) *EnA*: Enlil in the Ekur (Enlil A); ETCSL 4.05.1.
6) *KH*: The Keš Temple Hymn; ETCSL 4.80.2.
7) *ErH*: Enki's Journey to Nippur; ETCSL 1.1.4.
8) *IEb*: Inana and Ebih; ETCSL 1.3.2.
9) *Nu*: A hymn to Nungal (Nungal A); ETCSL 4.28.1
10) *GH*: Gilgameš and Huwawa (Version A); ETCSL 1.8.1.5.

In a study of the sequence of the Old Babylonian scribal curriculum, Tinney identified the compositions in the Decad as the first ten texts that were learned at the beginning of the second or advanced phase of the scribal curriculum.[13] The evidence that the Decad was learned at this stage includes the occurrence of the ten texts in sequence in two of the so-called "literary catalogues," the existence of sources with catchlines connecting some of the individual texts in the Decad in sequence, and collective tablets containing groups of these compositions (Tinney 1999: 169–70). The prominent place the Decad occupied in the scribal curriculum is also indicated by the relatively large number of preserved sources for these compositions. Each of the texts in the Decad is preserved in an average of fifty to eighty duplicates, and at present a total of over 740 sources for all of these compositions have been identified. Because of the quantity of duplicates for these texts and their frequent use in Phase Two of the scribal curriculum, when literary compositions were copied, the Decad is well suited for a study of the distribution and pedagogical function of the sources for literary texts.

The distribution of tablet types among the sources for the ten compositions in the Decad is summarized in Table 1.[14] As can be seen from this table, the distribution of tablet types among the texts in the Decad is similar to the general distribution of tablet formats across the corpus of Sumerian literary texts as a whole. Type I and Type III sources are the most common, greatly outnumbering the other tablet types that are attested for these compositions. Out of a total of 634 sources (454 of which are from Nippur) for which the tablet type could be identified with certainty, 151 (103 of which are from Nippur), or approximately 24 percent of the total number of sources (and approximately 23 percent of the Nippur sources), are Type I tablets. Type III sources are even more frequently attested, accounting for 455 of 634, or approximately 72 percent of the total number of sources (336 out of 454, or approximately 74 percent, of these sources are from Nippur). By contrast, prisms constitute only approximately 4 percent of the total number of sources (approximately 3 percent of which are from Nippur); and less than 1 percent of the extant sources for the Decad are Type II or Type IV tablets.

While it is clear that Type I and Type III tablets were the primary formats used for exercises involving literary texts, less is known about the pedagogical function of these tablet types than for Type II and Type IV tablets, which were used during "Phase 1." One obstacle is that the function of these sources is not as immediately deducible from the physical aspects of these types of tablets as it is for Type II and Type IV sources. Unlike the latter, which generally contain a model extract from a text written in a better hand, and the pupil's copy of this extract, Type I

13. Tinney 1999. Since the appearance of Tinney's study, the Decad as a curricular grouping has been cited and discussed in numerous publications. For a recent detailed treatment of this topic, which includes references to earlier studies and a more extensive bibliography of editions and discussions of each of the individual texts in the Decad, see Delnero 2006: 22–147.

14. All of the numerical data that pertain to the distribution and function of different tablet types cited in this table and throughout this study are drawn from the registry of sources compiled for each of the texts in the Decad in Delnero 2006: 1857–63 (*ŠA*), 1909–16 (*LiA*), 1961–68 (*Al*), 2020–28 (*InB*), 2108–14 (*EnA*), 2172–80 (*KH*), 2238–42 (*ErH*), 2290–97 (*IEb*), 2359–63 (*Nu*), and 2395–402 (*GH*). Unless otherwise indicated, all the sigla used to refer to specific sources in this study are the same as the sigla in these lists, which also include the tablet numbers of each source, together with references to previously published hand copies and photos. For a description and discussion of the use and meaning of these sigla, and an explanation of the abbreviations used to compile them, see Delnero 2006: 176–77.

TABLE 1. DISTRIBUTION OF TABLET TYPES AMONG THE SOURCES FOR THE DECAD.

	Type I	Type III	Prisms	Type II	Type IV	Type Uncertain
ŠA	13 (7)	42 (27)	4 (2)	0	0	8 (6)
LiA	21 (19)	36 (18)	3 (1)	1 (1)	0	8 (7)
Al	24 (16)	43 (37)	2 (1)	0	0	18 (16)
InB	19 (14)	59 (41)	4 (2)	0	0	16 (15)
EnA	10 (6)	47 (37)	3 (3)	0	1 (0)	11 (9)
KH	19 (12)	52 (39)	3 (1)	0	0	10 (9)
ErH	9 (5)	40 (32)	1 (0)	0	0	5 (5)
Ieb	14 (9)	46 (33)	2 (2)	0	0	12 (8)
Nu	7 (5)	37 (32)	1 (1)	0	0	4 (4)
GH	15 (10)	53 (40)	2 (1)	0	1 (0)	14 (8)
Total	**151 (103)**	**455 (336)**	**25 (14)**	**1 (1)**	**2 (0)**	**106 (87)**

NOTE: The number to the left of the parentheses refers to the total number of sources of this type, and the number in parentheses refers to the number of these sources that are from Nippur.

and Type III sources were produced entirely by the pupil, and do not include model texts. It is thus not possible, on the basis of the formal features of these types of sources alone, to identify whether the model text was written on another tablet, which was then copied directly by the pupil, or whether the pupil produced the copy by other means, such as copying from dictation or memory. In order to determine the function of scribal extract tablets, it is therefore necessary to consider other factors.

The Function of Type III Extract Tablets

The function of Type III sources was recently studied by Robson, who examined the function of extract tablets for copying mathematical texts (Robson 2002: 338–44). In addition to literary compositions, Type III tablets were also used to copy multiplication and division tables, which were probably learned during the second half of "Phase 1" of the scribal curriculum. By dividing a series of tables into four sections, each of which consists of ten reciprocal pairs, and examining the distribution of these sections across sources, Robson observed patterns indicative of the function of individual tablet types. The multiplication series Robson examined is attested on three different types of sources: Type I tablets (including prisms), Type II tablets, and Type III tablets. All four sections are attested in more or less equal numbers on Type III sources and the obverses of Type II sources, which both contain shorter extracts than Type I sources and the reverses of Type II sources (Robson 2002: 339–440). The distribution of the number of sections across Type I sources and the reverses of Type II sources, on the other hand, is significantly different. Instead of equal numbers of all four sections, there are substantially more Type I sources and reverses of Type II sources from the first quarter of the series than from the remaining three (Robson 2002: 342–43). To account for this correlation, Robson concluded that Type III sources were used along with the obverses of Type II sources in the first stages of learning so that pupils could memorize the entire table by copying it in short sections (Robson 2002: 344). Once the shorter sections had been memorized, pupils would review the

text by copying longer sections from memory on Type I tablets and the reverses of Type II tablets, starting with the beginning of the series, but rarely reaching the end (Robson 2002: 344).

Though it seems plausible that Type I and Type III tablets had the same function for learning literary compositions that they had for copying mathematical exercises, this assumption has yet to be tested. Moreover, the distribution of extracts on these two types of sources does not reveal as much about their function for literary texts as it does for metrological texts. Since literary compositions are generally shorter than a series of multiplication or reciprocal tables, they can be copied in their entirety on a single Type I tablet, and do not provide the same evidence for whether sections of a text were distributed evenly across a series of tablets or cluster toward the beginning of the text. There are, however, other patterns that more clearly reflect the use and function of Type I and III sources for copying literary compositions. One is the correlation between the percentage of a given composition that the preserved Type III tablets contain, and the relation between the average length of the extracts and the length of the composition. Another is the correlation between the number of Type I and Type III sources for each text.

Since Type III sources typically contain extracts from a single composition, one means of determining the function of these tablets is to identify patterns among the types of extracts they contain. Examining the distribution of passages found on the Type III sources for the compositions in the Decad, it would appear that the selection of lines to include was influenced more by length than by content. With the exception of KH, which consists of distinct verses that end with the same refrain and rubric, the Type III sources for these texts do not contain extracts that reflect coherent narrative or thematic units, and the lines with which they begin and end generally do not bear any discernible relation to the literary structure of the text. By contrast, when the lengths of these sources and the percentage of the composition they contain are considered, more definite patterns emerge. To illustrate this, the average percentage of a composition the Type III sources for the Decad contain was calculated by dividing the average number of lines per source with the total number of lines in the composition. To obtain the average number of lines per Type III source the total number of lines for all of the preserved Type III sources was counted and divided by the total number of Type III sources preserved for the text. To determine these totals only the number of lines in the sources for which the first and last lines are preserved, or for which the number of lines that are missing could be reasonably estimated on the basis of the amount of the physical tablet that is missing in relation to the distribution of lines on the existing portions of the obverse and reverse were included in the calculation. Since the line totals could be estimated for all but a relatively small number of sources, the exclusion of these sources is unlikely to have significantly altered the how representative the figures obtained are with respect to the entire corpus. The results of these calculations are presented in Table 2.

In considering the number of lines on the Type III sources for the texts in the Decad, the average length of each extract for the entire group is 24 percent, or approximately one quarter the length of the composition it contains. This percentage can also be observed for many of the individual texts. The average length of the sources for five of the ten compositions in the Decad—*ŠA*, *Al*, *InB*, *EnA*, and *Nu*—is within one or two percentage points of 25 percent, and if the smallest and largest percentages (14 percent for *IEb* and 36 percent for *ErH*) are dismissed as exceptions,[15] then the remaining three compositions (*LiA*, *KH*, and *GH*) fall within 6 percent of this percentage.

15. One explanation for the relatively large percentage obtained for *ErH* is that this composition is relatively short (125 lines) and contains a large number of short lines with non-finite verbal forms and simple syntactic constructions. Since this composition was learned in the second half of the sequence of the Decad, and many of the same types of constructions would have already have been encountered in the texts in the first half of the sequence, it may have been easier to copy longer extracts of this composition than it would have for the other nine texts. That this may have been the case is further suggested by the preservation of at least four extracts from Nippur which contain half or slightly more than half of the text (N_{III1}, which contains lines 1–69; N_{III3}, which contains lines 1–65; N_{III6}, which contains lines 1–60; and N_{III16}, which contains lines 60–125—the second half of the composition). Furthermore, when the relative shortness of the lines in *ErH* is taken into account, the impression that the extracts for this composition are significantly longer than the extracts for the other four texts in the second half of the sequence may be deceptive. *Nu* has approximately the same number of lines as *ErH*, but the lines in the text are much longer and typically contain twice as many signs. While the lengths of the extracts for *Nu* have significantly fewer lines (an average of 27 percent of the entire composition) they may contain approximately the same *amount of text* as the extracts for *ErH*.

TABLE 2. NUMBER OF LINES IN TYPE III SOURCES FOR THE DECAD.

	Average # of Lines per Type III Source	Number of Lines in Composition	Average % of Text per Type III Source
ŠA	24	99	24 %
LiA	33	108	31 %
Al	26	109	24 %
InB	35	154	23 %
EnA	40	171	23 %
KH	25	131+	19 %
ErH	45	125	36 %
IEb	25	181	14 %
Nu	33	121	27 %
GH	36	186+	19 %
Averages	**33**	**139**	**24 %**

NOTE: The percentages are rounded to the nearest whole number.

If it is assumed that Type III sources were used in the process of learning shorter sections of a longer literary text, as they were for mathematical tables, it appears that in the initial stages of learning, there was a tendency to divide the numbers of lines to be learned into sections representing approximately one fourth of the composition being studied. Furthermore, if the distribution of lines that occur on the preserved Type III sources for the Decad is examined, the number of extant extract tablets is generally more or less equal for each section of the composition. For example, for the composition Al, there are five sources from House F at Nippur that contain lines that are all or almost all from the first quarter of the text (N_{III19}, N_{III20} + N_{III21}, N_{III22}, N_{III23}, and N_{III24}), as well as five sources with lines from the second quarter (N_{III25}, N_{III26}, N_{III27}, N_{III28}, and N_{III29}), four sources with the third quarter (N_{III30}, N_{III31}, N_{III32}, and N_{III33}), and four sources with the final quarter (N_{III34}, N_{III35}, N_{III36}, and N_{III37}). Since all of these sources are from the same house, and there is nearly the same number of copies of each section, this would provide further evidence that extract tablets were used for copying entire texts with a series of extract tablets containing shorter sections. That compositions were copied on groups of Type III sources is also illustrated by extract tablets from Ur which begin and end with sequential lines and form a complete series containing an entire text, like the Type III sources *UET* 6/33, 34, and 35, which contain lines 1–67, 67–127, and 127–192 respectively of the 193-line composition The Debate between Grain and Sheep.[16]

The reason for the shorter number of extracts for *IEb* is less certain, but may have been influenced by the presence of a twenty line section (in which Inana describes her plans to destroy *Ebih*), which is duplicated in l.32–51 and l.91–110. To avoid repetition, there may have been a tendency to copy the lines in this passage, which comprises approximately 11 percent of the text, only once, and to copy the remaining sections of the text before and after the first occurrence of these lines in shorter sections. Partial confirmation for this may come from the presence of significantly more extracts from Nippur with lines from the first occurrence of this passage (8) versus lines from the second occurrence (2). Furthermore, the exceptional series of five extract tablets from Ur (discussed in more detail below) with an average of only 30 lines (or approximately 17 percent of the text), may be contributing to the lower than average percentage of lines for the sources for this composition.

16. ETCSL 5.3.2. The line numbers given here follow the numbering of Alster and Vanstiphout (1987), who label these sources U_1, U_2, and U_3 in their edition of this composition.

Assuming then, that there was a tendency to copy complete compositions on a series of approximately four extract tablets—as the figures in the Table 2 suggest—the approximate number of extant groups of Type III sources for each of the ten compositions in the Decad text can be calculated by dividing the total number of preserved Type III sources for each composition by four. This is of course not meant to imply that each group of four sources was written by the same scribe, or that every group of Type III sources for a composition consisted of exactly four tablets, but only to indicate a statistical probability based on a more general pattern. That the division of extracts on Type III tablets into fourths was not a rule, but a general tendency is suggested by the existence of extracts for all of the texts in the Decad that are either significantly shorter or longer than 25 percent of the entire composition. Extracts that contain as little as a sixth, or as much as half, of the text are attested for all ten compositions. The series of extracts for the composition The Debate between Grain and Sheep cited above, for example, show that in this instance a complete text was copied on a sequential series of three Type III sources; and a partial series of Type III sources for IEb with extracts of 25–35 lines (Ur_1, Ur_2, Ur_5, and Ur_7), two of which (Ur_1 and Ur_2) begin and end with the same line, shows that literary compositions could be copied on a series of as many as six extract tablets.

When the total number of Type III sources for each composition in the Decad is divided by four to obtain the average number of preserved groups of sources containing the entire text, there appears to be a correlation between the number obtained and the number of Type I sources for each composition. These correlations are presented in the following table:

TABLE 3. NUMBER OF GROUPS OF TYPE III SOURCES VS. NUMBER OF TYPE I SOURCES.

	Total Number of Type I Sources	**Total Number of Type III Sources**	**Number of Groups of Sources with Entire Text (Estimated)**
ŠA	13 (7)	42 (27)	11 (7)
LiA	21 (19)	36 (18)	9 (5)
Al	24 (16)	43 (37)	11 (9)
InB	19 (14)	59 (41)	15 (10)
EnA	10 (6)	47 (37)	12 (9)
KH	19 (12)	52 (39)	13 (10)
ErH	9 (5)	40 (32)	10 (8)
Nu	14 (9)	46 (33)	12 (8)
IEb	7 (5)	37 (32)	9 (8)
GH	15 (10)	53 (40)	13 (10)
Total	**151 (103)**	**455 (336)**	**115 (84)**

NOTE: The number to the left of the parentheses refers to the total number of sources of this type, and the number in parentheses refers to the number of these sources that are from Nippur.

For many of the compositions in the Decad, the number of groups of four Type III sources corresponds directly to the number of Type I sources for this text. For the Nippur sources for *ŠA* and *GH* this number is identical; for six of the eight remaining texts (*InB*, *EnA*, *KH*, *ErH*, *IEb*, and *Nu*), it is nearly identical. Assuming that the same scribes who wrote the groups of Type III sources also wrote the Type I sources containing the same texts, this suggests that for each completed group of Type III tablets, scribes would produce one Type I tablet. This pattern is consistent

with Robson's assessment of the function of Type I and III sources for learning multiplication and division tables. In the initial stages of learning, the scribes practiced the entire text in short sections. After completing this process, they would then review the complete composition on a Type I tablet.

Two Type III Extract Tablets

The initial stage in the process of learning literary texts is exemplified by two rather unique Type III sources for the composition *LiA*. Both of these tablets—NBC 1311 (Source X_3) and NBC 1312 (Source X_4)—are housed in the Yale Babylonian Collection of Yale University in New Haven, and were published as hand-copies by Albert Clay in the second volume of the series Babylonian Inscriptions in the Collection of James B. Nies in 1920. These tablets were purchased during the first decade of the twentieth century around the same time similar groups of Old Babylonian literary tablets now in the Louvre in Paris and the Hermitage in Saint Petersburg were acquired. While it is frequently assumed that many of these tablets are from Larsa, in the absence of more direct evidence, the provenience of the two sources remains unknown.

What is significant about Sources X_3 and X_4 is that they both contain identical extracts (lines 1–31 of *LiA*) with the same distribution of lines on the obverse and reverse (obv. lines 1–20; rev. 1ines 21–31), and have colophons that indicate they were copied on the same day by two different scribes. These colophons read:

(Colophon X_3) im-gid$_2$-da *il$_3$-šu-i-di-šu* iti še-KIN-ku$_5$ u$_4$-11-kam
"Extract tablet" (imgida) of Ilšu-Iddiššu. Month 12, day 11

(Colophon X_4) im-gid$_2$-da *i-din-eš$_4$-tar$_2$* iti še-KIN-ku$_5$ u$_4$-11-kam
"Extract tablet" (imgida) of Iddin-Eštar. Month 12, day 11

According to the colophons, Source X_3 was copied on the eleventh day of še-KIN-ku$_5$ (Month 12) by a scribe identified as Ilšu-iddiššu and Source X_4 was copied on the same day and month by a scribe named Iddin-Eštar. These colophons, together with the identical distribution of lines on the obverses and reverses of both tablets, provide direct evidence that these two scribes were being trained at the same time, and were given identical assignments. Furthermore, by analysing the variant writings that occur in the two sources, both with respect to the other preserved sources for these lines and with respect to one another, it can be demonstrated that these extracts were copied either from dictation, or more probably by memory, at an early stage of learning *LiA*.

For the composition *LiA* a total of 71 sources have been identified. Over two-thirds of these sources (46) are from Nippur, but duplicates from Babylon, Isin, Kish, Uruk, and Ur, as well as other duplicates from unknown proveniences have also been discovered. For the lines copied in Sources X_3 and X_4 there are an average of fifteen to eighteen duplicates per line. When the contents of X_3 and X_4 are compared with how the lines are copied in the majority of sources, there is a substantial amount of overlap across the sources.[17] The preserved portions of the first ten lines in X_3 and X_4, which are broken in a few places, are identical to the majority of sources, as are all but nine of the remaining lines. There are, however, a significant number of instances in which one or both of these sources contain writings that differ from those in other sources. These instances are listed in Table 4.

At least three of the variants that occur in Sources X_3 and X_4 are only attested in these two sources. Furthermore, the omission of the determinative na$_4$ with za-gin$_3$ in line 11 in X_3 and X_4 only occurs in one other source (N_{11}),

17. The data pertaining to textual variation in this section, including the versions of the lines selected to represent the composite text of the lines cited below, were drawn from the score of *LiA* in Delnero 2006: 1909–60. For a description of how these scores were compiled and a discussion of the criteria that were used to distinguish textual variants from "correct" writings in producing the composite text for this composition, see Delnero 2006: 148–82, esp. 175–76.

Table 4. Variants in Sources NBC 1311 (X3) and NBC 1312 (X4).

11: su_6 ^{na_4}za-gin_3 e_3-a ĝir_2 KEŠ$_2$.KEŠ$_2$-sa me-en

X$_3$ su_6 ^{Ø}za-gin_3 e_3-a ***ĝiš$^{?}$(-)keš$_3$?*** [. . .]
X$_4$ su_6 ^{Ø}za [. . .] a [. . .] a [. . .] me-en

13: uktim huš-huš-a hi-li du_8-du_8-a me-en

X$_3$ uktim(SIG$_7$.ALAN) huš-huš-a hi-li du_8-du_8-***Ø*** me-en
X$_4$ uktim(SIG$_7$.ALAN) huš-huš-a [. . .] du_8-***Ø*** me-en

15: a_2 il_2-la šu-si sa_6-sa_6 me-en

X$_3$ a_2 il_2-la šu-si sa_6-***ga*** me-en
X$_4$ a_2 il_2-la šu […] sa_6-***ga*** me-en

19: saĝ-kal kur-kur-ra kalam-ma il_2-la me-en

X$_3$ saĝ-kal kur-kur-ra kalam-ma il_2-***la***$_2$ me-en
X$_4$ saĝ-kal kur-kur-ra kalam […] me-en

22: an-ta saĝ il_2-la ki-gub sa_6-ga me-en

X$_3$ an-ta saĝ il_2-la ki-gub ***si***$_3$-ga me-en
X$_4$ an-ta saĝ il_2-la ki-gub sa_6-ga [. . .]

24: an-ne_2 aga zi mah saĝ-ĝa_2 mu-ni-in-gi-en

X$_3$ an-ne_2 aga zi mah saĝ-ĝa_2 mu-ni-in-gi-en
X$_4$ an-***e*** aga zi mah saĝ-ĝa_2 mu-ni-in-gi-en

25: ^{d}en-lil_2-le dumu ki-aĝ$_2$-ĝa_2-ni me-en

X$_3$ ^{d}en-lil_2-le dumu ki-aĝ$_2$ ***an-na*** me-en
X$_4$ ^{d}en-lil_2-***e*** dumu ki-aĝ$_2$ ***an-na*** me-en

28: ĝa_2-ĝiš-šu_2-a-ka nam du_{10} mu-un-tar

X$_3$ ĝa_2-ĝiš-šu_2-a-***Ø*** nam du_{10} mu-un [. . .]
X$_4$ ĝa_2-ĝiš-šu_2-a-***Ø*** nam du_{10} mu-un-tar

29: ^{d}nin-tu-re sig_4 keš$_3$^{ki}-ta

X$_3$ ^{d}nin-tu-re sig_4 keš$_3$ […]
X$_4$ ^{d}nin-tu-***ra*** sig_4 keš$_3$^{ki}-***de***$_3$

NOTE: The omission of a sign is indicated with "Ø" and writings that differ from those attested in the majority of preserved sources are written in boldface and italics.

against seven sources with ^{na4}za-gin$_3$, and is also characteristic of these two sources. In addition to the omission of the determinative with za-gin$_3$, the following variants are specific to these sources:

1) sa$_6$-ga for sa$_6$-sa$_6$ in l. 15 (against twelve sources, eight of which are from Nippur).
2) ki-aĝ$_2$ an-na for ki-aĝ$_2$-ĝa$_2$-ni in l. 25 (against nine sources, seven from Nippur).
3) ĝa$_2$-ĝiš-šu$_2$-a-Ø for ĝa$_2$-ĝiš-šu$_2$-a-ka in l. 28 (against seven sources, five from Nippur).

The variant sa$_6$-ga for sa$_6$-sa$_6$ ("fine, beautiful") as an adjectival form modifying šu-si ("fingers") is probably erroneous, since the reduplicated form sa$_6$-sa$_6$ would be expected with an adjective modifying a plural noun. A probable explanation for this mistake is that sa$_6$-ga anticipates the form sa$_6$-ga which modifies ki-gub ("position, office") in l. 22. An error like this could easily be explained as a memory error, since the confusion of similar but not identical forms is a common mistake made when recalling a text from memory,[18] but the occurrence of this variant in both sources complicates this analysis. While it is not impossible that both scribes made exactly the same memory error, it seems more likely that this error had been made before these extracts were produced. The error may have been present in the model text or occurred at an earlier stage when the two scribes were rehearsing the text they were learning together. The variants (dumu) ki-aĝ$_2$ an-na for (dumu) ki-aĝ$_2$-ĝa$_2$-ni ("his beloved son") in l. 25 and ĝa$_2$-ĝis-šu$_2$-a (the name of a shrine of the goddess Ninlil) for ĝa$_2$-ĝiš-šu$_2$-a-ka (preserving the locative element /a/ after the genitive /ak/) in l. 28, on the other hand, more evidently entered into the model text before the process of learning this version of the composition began. The phrase ki-aĝ$_2$ DN-a (divine name + genitive) "beloved of DN" is well attested in literary compositions as an epithet of both rulers and divinities, and the expression ki-aĝ$_2$ an-na ("beloved of An") occurs twice in The Exaltation of Inana (with nin, "queen")[19] and twice in Ninurta C (with dumu, "son").[20] Since a similar form is not attested in *LiA*, it is more likely that the frequency with which expressions of this type occur in other texts led to the corruption of the model text at an earlier stage in its transmission. Similarly, the omission of the locative element with a word ending in "a" and of the determinative na$_4$ (for names of stones) with za-gin$_3$ ("lapis lazuli") are also not uncommon. This sign may have been intentionally omitted for stylistic reasons or to shorten the version of the text that was being used a model.

In addition, there are also variant writings that occur in either X_3 or X_4, but not in both. In two instances the variants are unique to one of the two sources, and in the other two instances they are only attested in one other source. These variants are:

1) an-e for an-ne$_2$ in l. 24, which occurs only in X_4.
2) ^{d}en-lil$_2$-e for ^{d}en-lil$_2$-le in l. 25, which also occurs only in X_4.
3) ^{d}nin-tu-ra for ^{d}nin-tu-re in l. 29, occurring in X_4 and one other source (X_5), but not in X_3.
4) si$_3$-ga for sa$_6$-ga in l. 22, occurring in X_3 and one other source (X_5), but not in X_4.

Since both X_3 and X_4 were copied on the same day, and the occurrence of the variants unique to both sources discussed above strongly suggests that both texts were derived from the same model or version, the variants that are unique to one of the two sources can be directly attributed to the individual scribes who copied these tablets, and thus provide valuable insight into how these sources were produced. The variant forms an-e and ^{d}en-lil$_2$-e deviate from the standard writings of the names of the deities An and Enlil when they are followed by a vowel and written as an-ne$_2$ and ^{d}en-lil$_2$-le. Defective writings of this type can be classified more broadly as unorthographic writings because they deviate from the standard writing of the form across the corpus of Old Babylonian

18. For a discussion of the diagnostic characteristics of memory errors and the criteria that can be used to identify them see, for now, Delnero 2006: 154–61, esp. 160–61. This topic will be treated in more detail in a forthcoming article.

19. In lines 121 and 136.

20. ETCSL 4.27.03, lines 43 and 85.

literary compositions. In most instances defective writings such as these are phonetic and reflect an attempt to write a form on the basis of how it sounds without using the sign(s) normally used to write it.[21] Since both X_3 and X_4 were almost certainly derived from the same model, this virtually eliminates the possibility that the variant was present in the source text, and can therefore have only occurred while copying from dictation or memory, but not by copying directly from another exemplar. While the variants an-e and ^{d}en-lil$_2$-e could have theoretically occurred while copying from either dictation or memory, the grammatical variant ^{d}nin-tu-ra for ^{d}nin-tu-re in l. 9 in X_4 (with the locative element /a/ instead of the agent marker /e/), which was not influenced by any discernible phonological factors, suggests dictation is unlikely. The probability that the phonetic writings in this source (including il$_2$-la$_2$ for il$_2$-la in l. 19 in X_3) were not the result of dictation errors is further suggested by the unusual variant (ki-gub) si$_3$-ga for (ki-gub) sa$_6$-ga in l. 22 in X_3 (a semantic variant rendering the phrase as "who is established (for) the position" instead of as "who is good (for) the position"?), as well as by ĝiš$^{?}$-keš$_3^{?}$ for ĝir$_2$ KEŠ$_2$. (KEŠ$_2$) in l. 11 in X_3 and keš$_3^{ki}$-de$_3$ for keš$_3^{ki}$-ta in l. 19 in X_4. Since neither variant is phonetic in origin or can be linked to any plausible grammatical or semantic recensional differences, it is probable that they are simply errors unique to each source resulting from an error in recall, when the scribe failed to remember the correct form and instead wrote a similar, but nonetheless erroneous form in its place. Even if the variants in X_3 and X_4 do not always decisively prove that these two sources were copied from memory instead of dictation, however, the quantity and nature of the variants do, at the very least, indicate that they were copied before the scribes had correctly learned the content of the composition. This observation accords well with the evidence presented in the preceding sections that Type III extract tablets were used in the initial stages of learning literary compositions.

Conclusion

The distribution of Type III extract tablets both across individual compositions and with respect to the number of Type I sources for a given text provides clear evidence that Type III sources were used for learning texts in short sections before copying the entire text on a Type I source. Type I and Type III sources are attested with much greater frequency for the ten texts in the Decad (and for Old Babylonian Sumerian literary compositions in general) than other tablet types, indicating that they were the primary formats used for copying literary texts during the advanced phase of scribal education. The use of Type I and III sources contrasts with the use of Type II and IV sources, which contain model texts that were copied directly by the pupil, and were commonly used during the first, or elementary phase of the curriculum. For each composition in the Decad, Type III sources outnumber Type I sources by an average of four to one. When this ratio is compared with the average percentage of a text that Type III sources generally comprise, 25 percent, it becomes evident that literary compositions were initially copied in a series of approximately four shorter sections spanning the entire text. Later, the whole composition was copied on a Type I source. This process is further confirmed by two Type III sources, which were written on the same day by different scribes and contain identical 31-line extracts from the composition Lipit-Eštar A. Moreover, many of the textual variants that are unique to these two sources, either in relation to the other preserved sources for the text or to one another, are characteristic of mistakes made when copying from memory, and not of the types of errors that occur while copying directly from another duplicate or from dictation. This finding is also consistent with Robson's conclusions about the function of Type III sources for copying mathematical texts, suggesting that the manner in which different tablet types were used for training scribes was standard throughout the scribal curriculum.

The body of evidence for scribal education in ancient Mesopotamia has grown substantially with the shift away from studying literary texts about scribal life to examining the material evidence for how scribes were trained. The

21. For a more extensive discussion of the phonetic origin of most unorthographic variants, including defective writings such as these, see Delnero 2006: 469–90, for unorthographic variants in general; 522–37, for defective writings in general; and 595–98, for a complete list of the occurrences of unorthographic writings of the same type as an-e for an-ne$_2$ and ^{d}en-lil$_2$-e for ^{d}en-lil$_2$-le in the Decad.

results of this study demonstrate how tablet typology continues to be an invaluable source for understanding how scribal education was conducted in ancient Mesopotamia, especially when considered together with other factors, such as the content of specific sources and the distribution of tablet types at different stages of training.

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