

Gendered literacy and numeracy in the Sumerian literary corpus

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1. Introduction

In the Old Babylonian period, trainee scribes learned to write Sumerian literature not simply to become competent in literary Sumerian.¹ The compositions they copied and memorized also carried messages about the role of scribes in the world, the ideals they should live up to, and the institutions that depended on them. An analysis of depictions of literacy and numeracy in the OB Sumerian literary corpus might thus seem an obvious desideratum for intellectual historians of early Mesopotamia, yet it has been conspicuously lacking. Hitherto studies of OB literary schooling have focussed either on the supposedly historical content of certain scholastic genres – the so-called *e₂-dub-ba-a* works, and the debates between scribes – which were widely copied in scribal schools (e.g. George 2005) or on the material evidence of tablets from the schools themselves (e.g. Tinney 1999; Robson 2001). In this study I attempt to bridge the gap by examining images of literacy and numeracy in curricular literary Sumerian, not to mine the corpus for how literacy and numeracy ‘must have’ functioned in society – for, as we shall see, many of the actors are divine, and some inanimate – but to exam-

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ine how they were portrayed to trainee scribes and thus how those scribes might have constructed the ideals and mores of their profession.

Who amongst the large cast of Sumerian literary characters – male and female; divine, human, and inanimate – was literate, numerate or both? What writing materials did they use or possess? How did they act with them, and in relation to whom, and to what ends? I begin by presenting the dataset, drawn from ETCSL (Black et al. 1998–) in April and May 2006, and then analyse it quantitatively, according to the type of actor and the curricular context of the compositions the instances are drawn from. Finally, I relate my findings to other recent work to better understand the ideological and political role of Sumerian literature in the education of future bureaucrats and administrators.

1.1 Dataset and methodology

The dataset analysed comprises all of ETCSL categories 1–5, excluding c.2.1.7, c.2.3.1, and c.2.3.2 as pre-OB. Compositions in categories 0 (catalogues) and 6 (proverbs) were also omitted.² As of May 2006 that subcorpus consists of 354 literary works, 71 of which are attested in one or more manuscripts from the eighteenth-century scribal school now known as House F in Nippur (Robson 2001). The modern categories are used here only for ease of reference to the online corpus. For analytical purposes, later in the article I group the compositions according to the curricular clusters attested in House F, namely:

- Tetrad (Tinney 1999): 2.5.3.2, 2.5.5.2, 2.5.8.1, 4.16.1 (four compositions);
- Decad (Tinney 1999): 1.1.4, 1.3.2, 1.8.1.5, 2.4.2.01, 2.5.5.1, 4.05.1, 4.07.2, 4.28.1, 4.80.2, 5.5.4 (ten compositions);

² The former are excluded because they simply comprise incipits of compositions, not all of which are literary, and the latter for a complex of reasons. First, proverbs marked the final stage of elementary education, at least in Nippur (Veldhuis 2000) and thus had a separate pedagogical status. Second, the interrelationships between the various proverb ‘collections’ and individually copied proverbs are messy and badly understood, complicating quantitative studies. Finally, almost the only literate and numerate actors in the proverbs are scribes, which for the purpose of this analysis is a rather trivial and uninteresting result. For similar reasons, the fact that the ETCSL still lacks many of the *e₂-dub-ba-a* works (category 5.1) and dialogues between scribes (category 5.3) is unproblematic for this study. I have omitted from my analysis ‘minor’ textual variants attested in one or two manuscripts of any composition, and similarly ‘minor’ versions of compositions, as unrepresentative.

- Fourteen (Robson 2001): 1.4.3, 1.6.2, 1.8.1.4, 2.1.5, 2.2.2, 2.4.2.02, [5.1.1], [5.1.2], 5.1.3, 5.3.1, 5.3.2, [5.4.01], 5.6.1, 5.6.3 (14 compositions, of which three on the topic of scribes, in square brackets, are missing from the ETCSL corpus);
- Letter Collection B (Ali 1964): 2.1.3, 3.1.05, 3.1.21, 3.2.01, 3.2.02, 3.2.03, 3.2.04, 3.3.01, 3.3.02, 3.3.03, 3.3.04, 3.3.05, 3.3.06, 3.3.07, 3.3.08, 3.3.09, 3.3.10, 3.3.11, 3.3.12, 3.3.13, 5.7.2, 5.7.3, 5.7.a (23 compositions);
- Other compositions found in House F (Robson 2001): 1.1.3, 1.2.1, 1.2.2, 1.3.3, 1.4.1, 1.6.1, 1.8.1.2, 1.8.2.1, 1.8.2.2, 1.8.2.4, 2.1.4, 2.2.3, 2.2.4, 2.4.1.1, 2.5.4.01, 2.5.4.05, [2.5.4.06], [2.5.4.07], [2.5.4.12], [3.4.02], 4.07.3, 4.07.4, 4.08.18, [4.10.1], 4.14.1, 5.3.3, [5.3.4], 5.3.5, [5.4.02], [5.4.03], [5.4.05], 5.9.2 (32 compositions, of which nine, in square brackets, are missing from the ETCSL corpus; mostly praise poems of king Išme-Dagan and compositions about scribes).

I searched categories 1–5 of the ETCSL corpus, by lemma or label, for three categories of word relating to literacy and numeracy: concrete nouns; professional titles; and verbs. For each instance found I recorded the actors related to the key word, and its collocations – adjectives, objects, and/or verbs as appropriate. In many cases it was necessary to disambiguate literal meanings from metaphorical ones (e.g. *šid* ‘to count’ a city as a ruin mound) and to exclude irrelevant attestations (e.g. for *im* ‘clay’). I categorized actors as god; goddess; king (in royal hymns); hero (in narrative compositions); named non-royal human (in any context); anonymous human; other; no actor. I tabulated the data but in general considered the dataset too small to support a proper statistical analysis. However, as will be shown below, some very clear patterns emerged. First I consider the different groups of literate and numerate actors across the corpus, then the various objects, professions, and actors, before comparing images of literacy and numeracy in compositions known from House F against those not attested there.

2. Images of literacy and numeracy in the ETCSL corpus

2.1 The actors

Before analysing in detail the different objects, professions, and actions associated with literacy and numeracy, it is useful to get a sense of the actors and (modern) genres involved, corresponding to the ETCSL numbered categories. The total dataset comprises 360 attestations across a hundred compositions (Table 1). It is a necessary consequence of the way I have typologized the actors that heroes appear only in myths, epics, and historical narratives

(categories 1, 2.1), while kings occur solely in royal hymns (categories 2.4–2.8). Similarly, the literary letters (category 3) primarily have human protagonists.

Table 1. Attestations of literate and numerate actors across the ETCSL categories

	<i>Goddess</i>	<i>God</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Anon. human</i>	<i>Other</i>	<i>None</i>	<i>Total</i>	<i>Compositions</i>
Cat. 1	27	9	–	13	1	6	4	9	69	20
Cat. 2.1–2.2	1	1	–	2	8	7	5	2	26	7
Cat. 2.4–2.8	12	14	51	–	1	19	3	7	107	22
Cat. 3	–	1	–	–	15	7	–	4	27	17
Cat. 4	32	21	–	–	–	9	1	2	65	18
Cat. 5	6	2	–	–	10	32	6	10	66	16
Total	78	48	51	15	35	80	19	34	360	100

It is not a necessary outcome of the categorization of compositions and actors, however, that goddesses are over one and a half times as likely as gods or kings to be associated with literacy or numeracy, over twice as likely as named (male) humans, and more than five times as likely as the (male) heroes of myth and epic. This literary gendering of literacy and numeracy has, to my knowledge, never before been remarked on or analysed.

That divine gender divide is constant across the corpus. In myths, epics, and ‘wisdom’ literature goddesses are three times as likely to be literate and numerate as gods are. In royal hymns, where the focus is naturally on the kings’ abilities, the situation is apparently reversed; but fully 11 of the 14 relevant attestations of gods in royal hymns come from just one composition, namely *A hymn to Ħaia for Rīm-Sin* (*Rīm-Sin B*, c.2.6.9.2), known only from two tablets from Ur. Without those, the ratio of gods to goddesses is again around 1:3. Similarly, seven of the 21 pertinent instances of gods in divine hymns come from a single passage in a single source, *A hymn to Nanše* (*Nanše A*, c.4.14.1), where Nanše’s entire entourage is referred to. Without that passage, the ratio of literate or numerate gods to goddesses in divine and temple hymns would be some 1:2. Yet those numbers do not mean that more goddesses than gods are associated with literacy and numeracy. As shown below, the absolute numbers of deities are quite similar; rather, it is that in-

dividual goddesses are depicted in literate and numerate contexts twice as frequently (7.1 times each) as individual gods are (3.4 times each).

Table 2. Attestations of goddesses in literate and numerate contexts in the ETCSL corpus

<i>Name</i>	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Nisaba	16	9	10	8	43
Inana	3	7	2	–	12
Ninlil	3	4	1	–	8
Ĝeštinana	1	–	2	–	3
Nanše	1	1	–	1	3
Ninimma	1	–	1	–	2
Nungal	1	–	–	1	2
Širru	–	–	–	2	2
Bau's <i>lama</i>	1	–	–	–	1
Ninazimua	–	–	1	–	1
Ninisina	–	–	1	–	1
Total	27	21	18	12	78

Eleven different goddesses are associated with literacy and numeracy in 78 attestations across 31 compositions (Table 2). Of course, Nisaba accounts for over half of the attestations, in 18 compositions, but Inana and Ninlil together account for a further quarter, in six compositions and one composition (*Enlil and Sud*, c.1.2.2) respectively. Eight goddesses are associated with writing tools; eight are given professional titles. Only four have measuring equipment, however, and four carry out literate and numerate actions. Goddesses as a group are far more likely to be associated with objects or be given professional titles than to actually do anything literate or numerate. The implications of this discrepancy are discussed further below.

Fourteen gods are attested in literate and numerate contexts 48 times across 19 compositions (Table 3). Nisaba's consort Ĥaia accounts for nearly a third of the attestations, in just two compositions (c.2.6.9.2 and c.4.14.1); all attestations of the gods of Lagaš also come from the latter work, as mentioned above. With those exceptions, it tends to be the senior gods of the pantheon (Enki, Enlil, Nanna-Suen) who dabble in literacy and numeracy now and again, followed by gods of the underworld (Nergal, Ninazu, Ningišzida). Unlike goddesses, they are rather more likely to act than to be associated with tools or titles.

Table 3. Attestations of gods in literate and numerate contexts in the ETCSL corpus

<i>Name</i>	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Haia	8	–	4	3	15
Gods of Lagaš	–	6	–	1	7
Enki	1	1	2	2	6
Enlil	–	1	1	1	3
Nanna-Suen	1	–	–	2	3
Ḫendursaġa	–	–	2	–	2
Ninazu	–	1	–	1	2
Ninġišzida	1	–	–	1	2
Ninurta	–	–	–	2	2
Utu	–	2	–	–	2
An	1	–	–	–	1
Ninšubur	–	–	1	–	1
Nergal	–	–	–	1	1
Šul-pa-ed	–	–	–	1	1
Total	12	11	10	15	48

Six kings, all from the Ur III and Isin dynasties, are associated with literacy and numeracy a total of 51 times in 12 royal praise poems (Table 4). Šulgi and Išme-Dagan unsurprisingly account for two-thirds of the attestations. Kings are more likely to be associated with writing equipment than with measuring tools, professions, or actions.

Table 4. Attestations of kings in literate and numerate contexts in the ETCSL corpus

<i>Name</i>	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Šulgi (r. 2094–2047)	8	4	6	4	22
Išme-Dagan (r. 1953–1935)	4	3	2	2	11
Ur-Namma (r. 2112–2095)	2	2	1	2	7
Lipit-Eštar (r. 1934–1924)	2	1	2	1	6
Šu-Suen (r. 2037–2029)	1	–	–	2	3
Iddin-Dagan (r. 1974–1954)	1	–	–	1	2
Total	18	10	11	12	51

Four heroes of epic or ‘historical’ narratives are associated primarily with writing equipment 15 times in four compositions (Table 5): *The death of Gilgameš* (c.1.8.1.3), *Enmerkar and the Lord of Aratta* (c.1.8.2.3), *Enmerkar and Ensuġirana* (c.1.8.2.4), and *Sargon and Ur-Zababa* (c.2.1.4). The pertinent passages have frequently been discussed in the context of literary images of writing and its origins (e.g. Glassner 2003: 9–28).

Table 5. Attestations of heroes in literate and numerate contexts in the ETCSL corpus

<i>Name</i>	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Enmerkar	6	1	–	–	7
Lord of Aratta	4	–	–	–	4
Gilgameš	2	–	–	–	2
Ur-Zababa	1	–	–	1	2
Total	13	1	–	1	15

Twenty-six named humans account for 35 attestations in 19 compositions, while anonymous humans make up 80 instances in 35 compositions. The ten ‘other’ actors, attested 19 times in nine compositions, mainly comprise the personified protagonists of debate poems. Thirty-four attestations of equipment, professions, or actions, in 19 compositions, have no actor associated them.

So how does the divine gender divide in literacy and numeracy manifest itself? What do the goddesses have or do differently to the gods, and to what ends? It already seems as though goddesses have more tools and titles than gods do, but are less likely to do anything with them. Are there any contexts in which the situation is more complicated? To begin to answer those questions, the following section considers all attestations of writing materials and metrological equipment, the actors associated with them, and the ways in which they are described and used.

2.2 Writing materials and metrological equipment

A variety of writing implements and inscribed objects are attested in the ETCSL corpus (Table 6), through 103 instances in 51 compositions. Not surprisingly, nearly three-quarters of those references are to different sorts of *dub* ‘tablet’ and *im* ‘clay’.

Table 6. Attestations of writing materials in the ETCSL corpus

	<i>Goddess</i>	<i>God</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Actorless human</i>	<i>Other</i>	<i>None</i>	<i>Total</i>
Tablet (<i>dub</i>)	14	6	7	2	–	4	1	5	39
Clay (<i>im</i>)	7	4	3	9	2	7	1	1	34
Seal(ing) (<i>kišib</i> , <i>na₄-kišib</i>)	2	–	2	–	2	3	–	–	9
Stylus (<i>gi</i> , <i>gi-dub-ba</i>)	3	1	3	–	–	–	–	–	7
Stela (<i>na-du₃-a</i>)	–	–	–	2	1	–	–	2	5
Writing board (<i>le-um</i>)	1	–	–	–	–	2	–	1	4
Inscription (<i>mu-sar</i> , <i>maš-dara₃</i>)	–	–	2	–	–	1	–	–	3
Tablet board (<i>giš-dub-dim₂</i> , <i>giš-dub-ba</i>)	1	–	–	–	–	1	–	–	2
Total	28	11	17	13	5	18	2	9	103

Goddesses are associated with over a quarter of attested writing implements, about 2.5 times as frequently as gods or heroes and roughly 1.5 times as often as kings or named humans. Although deities are around twice as likely to be associated with *dub* ‘tablets’ as *im* ‘clay’, in divine contexts neither object ever collocates with *sar* ‘to write’. Instead, verbs of possession such as *šu du₈*, *šu gal₂*, *šu gar*, and *tuku* predominate (about 50% of divine attestations, mostly with goddesses); *im gub* ‘to inscribe clay’ accounts for about 10%. By contrast, in some 15% of human or actorless contexts inscribed objects and writing materials collocate with *sar* but verbs of possession are very rare. In 10% of human contexts, *gub* is also used – collocating not only with *im* but also with *dub* and *na-du₃-a* ‘stele’. In short, deities do not write with the equipment they possess, but humans do.

This suggests that divine writing equipment is more status symbol than functional equipment. This is corroborated by an examination of the adjectives associated with them. Whereas over half the divine writing materials and inscribed objects are qualified adjectivally, less than a quarter of human or actorless ones are – and over half of those are associated with kings. Common divine noun phrases are *im* or *dub nam-til₃-la* ‘clay or tablet of life’ (5 attestations) and *dub za-gin₃* ‘lapis lazuli tablet’ (4 attestations), the latter often in connection with *mul* ‘stars’, *an* ‘heaven’, *kug* ‘holy’, and/or *gun₃* ‘sparkling, twinkling’ (5 attestations in various combinations). Goddesses are twice as likely as gods to have such descriptions attached to their equip-

ment (14 attestations to 7). Royal writing objects may also be *za-gin₃* 'lapis' (3 attestations), but other descriptions of them tend to be more prosaic.

When it comes to measuring and calculating there is an even sharper gender divide. There are 75 attestations of metrological and mathematical equipment in the ETCSL corpus, from 31 compositions. They fall into two roughly equal halves, relating to length measurement and calculation (Table 7), and weighing and capacity measurement (Table 8) respectively. Attestations of metrological units have not been included. The nouns *šudum* and *niġ₂-kas₇* 'account' often collocate; each collocation was counted as one instance, not two.

Table 7. Attestations of length measurement and calculation equipment in the ETCSL corpus

	<i>Goddess</i>	<i>God</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Anon. human</i>	<i>Other</i>	<i>None</i>	<i>Total</i>
Account (<i>šudum, niġ₂-kas₇</i>)	2	1	4	–	1	2	–	2	12
Rope (<i>eš₂, eš-gana₂</i>)	8	1	1	–	–	–	1	–	11
Reed (of 1 rod) (<i>gi, gi-1-nindan</i>)	7	–	2	–	–	–	–	–	9
Peg (<i>ġiš-gag, saġ-gag</i>)	1	–	1	–	–	–	–	2	4
Yardstick (<i>ġiš-as₄-lum</i>)	1	–	1	–	–	–	–	–	2
Tally stick (<i>ġiš-šudum-ma</i>)	–	–	–	–	–	–	–	2	2
Cubit rod (<i>kuš₃</i>)	1	–	–	–	–	–	–	–	1
Total	20	2	9	–	1	2	1	6	41

Simply put, goddesses and kings measure lengths and keep accounts; gods and anonymous humans measure capacities and weigh objects. Heroes and named humans do neither. In each case the dominant group accounts for some two-thirds of the attestations, though where goddesses are twice as likely as kings to be associated with mensuration equipment, gods and anonymous humans are equally likely to be mentioned with weights and capacity vessels.

Table 8. Attestations of capacity vessels and weighing equipment in the ETCSL corpus

	<i>Goddess</i>	<i>God</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Anon. human</i>	<i>Other</i>	<i>None</i>	<i>Total</i>
Various capacity vessels (<i>sila</i> ₃ , <i>ba-an</i> , <i>gur</i> , <i>lid</i> ₂ - <i>da-ga</i>)	1	6	–	1	1	10	4	3	26
Weight stone (<i>na</i> ₄)	–	2	1	–	–	2	–	1	6
Weighing scales (<i>ḡiš-rin</i> ₂)	–	2	–	–	–	–	–	–	2
Total	1	10	1	1	1	12	4	4	34

Goddesses use their measuring equipment no more than their writing tools: for the most part they *šu du*₇ ‘perfect’ or *šu du*₈ ‘hold’ them (4 attestations each). Kings, on the other hand, are more likely to *zu* ‘know’, *raḥ*₂ ‘measure’ with, or *e*₃ ‘lay out’ their tools. Similarly, kings and anonymous humans carry out a variety of actions with their capacity measures and weighing equipment, from calibration (*gub*, *si sa*₂) to fraudulent substitution (*šu zig*₃). About a third of capacity vessels, weights, and scales are described adjectivally, always very prosaically as *gal* ‘large’, *tur* ‘small’, *gen*₆ ‘fixed, standardized’, or *inim* ‘agreed’. Mensuration equipment tends to be left unqualified too, with the striking exception of *eš*₂(-*gana*₂) ‘(measuring) ropes’, three-quarters of which are made of *za-gin*₃ ‘lapis lazuli’. All but one of these belong to a goddess.

In short, then, in the divine realm it is goddesses who are overwhelmingly associated with writing instruments and mensuration equipment. These objects tend to be more glamorous than other actors’ – some 60% of lapis tools are associated with goddesses, 25% with kings – and rarely put to practical use. Amongst the gods, it is deities in Nanše’s entourage who are most closely associated with capacity measures (c.4.14.1), while Nisaba’s consort Ḫaia dominates the attestations of writing tools (c.2.6.9.2). Utu alone amongst the divine beings has anything to do with weighing (*Hymn to Ḫen-dursaḡa*, c.4.06.1).

So, if kings and goddesses are associated with writing and mensuration tools, while gods and anonymous humans are linked to weighing equipment and capacity measures, we might expect that division to be reflected in the professional titles that members of each group are given and the actions they perform. However, the situation is not that straightforward.

2.3 Literate and numerate professions and actions

About a dozen different literate and numerate professions are attested 108 times in 51 compositions (Table 9). Not surprisingly (*nam-*)*dub-sar* ‘(office of) scribe’ accounts for some 40% of the instances; at the other extreme *dumu e₂-dub-ba-a* ‘student’ is attested only once, due to the lack of school narratives and dialogues in the ETCSL corpus as currently constituted.

Table 9. Attestations of literate and numerate professions in the ETCSL corpus

	<i>Goddess</i>	<i>God</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Anon. human</i>	<i>Other</i>	<i>Total</i>
(Office of) scribe (<i>dub-sar, nam-dub-sar</i>)	12	1	9	–	9	12	–	43
Scholar (<i>um-mi-a, dub-zu</i>)	1	–	1	–	7	10	–	19
Temple administrator (<i>saġġa</i>)	–	3	–	–	2	4	–	9
Administrator (<i>šabra, šag₄-tam, šar₂-ra-ab-du</i>)	–	–	–	–	3	4	2	9
(Office of) land registrar (<i>saġ-tun₃, nam-saġ-tun₃</i>)	3	1	–	–	1	1	2	8
Supervisor (<i>nu-banda₃</i>)	1	1	1	–	–	3	1	7
(Office of) overseer (<i>ugula, nam-ugula</i>)	1	–	–	–	–	3	1	5
Archivist (<i>pisaġ-dub-ba</i>)	–	1	–	–	3	–	–	4
Accountant (<i>šid-du₃</i>)	–	3	–	–	–	–	–	3
Student (<i>dumu e₂-dub-ba-a</i>)	–	–	–	–	–	1	–	1
Total	18	10	11	–	25	38	6	108

Goddesses are almost twice as likely as gods or kings to carry professional titles. However, well over half the attestations are for named or anonymous humans. Heroes in epics never attract such descriptions. Beyond those broad generalizations, more detailed observations can be made. Most importantly, *dub-sar* ‘scribe’ is an epithet of goddesses and kings, not gods. Given these actors’ association with accounting and mensuration equipment this is a useful reminder of the fundamentally numerate conceptualization of cuneiform literacy: writing was primarily about recording quantifications. On the other hand, the much rarer *šid-du₃* ‘accountant’ is used exclusively of gods despite, as we have seen above, their tendency not to be associated with mensuration or accounting tools. Divine or royal actors are never given any

of the terms for administrator, and rarely *ugula* ‘overseer’ or *pisaḡ-dub-ba* ‘archivist’: does this mean that these were considered relatively low-status professions? *um-mi-a* ‘scholar’ is an almost exclusively human designation too. By contrast, *saḡḡa*, ‘temple administrator’, *saḡ-tun₃* ‘land registrar’, and *nu-banda₃* ‘supervisor’ appear to pertain more or less equally to humans and deities – although the low frequency of attestations compels interpretive caution.

Where deities and kings account for just over a third of the attested professional titles, they account for three-quarters of the 16 attestations of the abstract nouns *nam-X* ‘office of X’ (mostly *nam-dub-sar*). Just over a fifth of the attestations of professions are qualified adjectivally. Designations of skillfulness (*a-ra₂ zu*, *gal zu*, *ḡal₂ taka₄-a*, *sag₉*, *umun₂ ak*) are applied only to kings and anonymous humans, while the label *nibru^{ki}* ‘of Nippur’ is given exclusively to named humans. Grander descriptions such as *mah* ‘majestic’ and *kalam-ma* ‘of the land’ are applied only to deities, mostly goddesses, and to the personifications of Plough and Summer in the debate poems. Terms of seniority (*gal*) and juniority (*tur*, *ban₃-da*), on the other hand, can attach to deities and anonymous humans alike.

Eight different literate and numerate actions were chosen for analysis, attested 74 times in 45 compositions (Table 10). The verbs *in dub* ‘to fix boundaries’ and *ki sur* ‘to mark borders’ often collocate; each collocation was counted as one instance, not two. Surprisingly *aḡ₂* is never used in the corpus in its literal sense of ‘to measure’. As might be expected, *sar* ‘to write’ and *šid* ‘to count’ together account for over two-thirds of the instances.

Table 10. Attestations of literate and numerate actions in the ETCSL corpus

	<i>God</i>	<i>Goddess</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Anon. human</i>	<i>Other</i>	<i>None</i>	<i>Total</i>
Write (<i>sar</i>)	–	–	10	–	4	6	–	10	30
Count (<i>šid</i>)	10	4	–	–	2	1	–	4	21
Inscribe clay (<i>im gub</i>)	2	3	–	1	–	2	–	–	8
Fix boundaries and mark borders (<i>in dub</i> , <i>ki sur</i>)	–	3	1	–	–	1	–	2	7
Measure (<i>gid₂</i> , <i>raḥ₂</i>)	2	2	1	–	–	–	–	1	6
Weigh (<i>la₂</i>)	1	–	–	–	–	1	–	–	2
Total	15	12	12	1	6	11	–	17	74

It has already become clear that deities do not *dub sar* ‘write tablets’ or *im sar* ‘write on clay’. Now it can be seen that they never *sar* ‘write’ at all; only kings and other humans do that. Rather, they *im gub* ‘inscribe clay’. This pattern is particularly striking given the large number of attestations of the first verb and the frequent identification of goddesses as *dub-sar* ‘scribe’, literally ‘tablet writer’. Equally curiously, kings never count (*šid*), but gods are twice as likely to count as goddesses. Only deities and kings, not humans, ever measure (*gid₂*, *raḥ₂*) lengths and areas, or fix boundaries and mark borders (*in dub*, *ki sur*). Just as heroes take no literate or numerate professional designations, they tend not to undertake literate or numerate actions.

In sum, the portrayal of literacy and numeracy in the ETCSL corpus is complex, at times even confusing. Before focusing in on House F, it is thus probably useful to summarize the findings so far, in relation to the different groups of actors involved.

2.4 The actors again

Anonymous (male) humans and goddesses are the two groups of actors most closely associated with literacy and numeracy in the ETCSL corpus, each accounting for some 22% of the collected attestations. Second come kings and gods, with around 14% of the dataset each. Third are named humans, and objects/actions with no associated agent, at 10% each. Epic heroes and other actors each account for around 5% (Table 1). But, as I have shown, the particular character of that association differs for each group of actors. Let us consider them one by one.

Literate and numerate anonymous humans occur most frequently in royal hymns, *e₂-dub-ba-a* works, and ‘wisdom’ literature, which together account for some two-thirds of attestations (Table 1). They are associated with writing implements as often as kings, less often than goddesses, but more frequently than other groups of actors (Table 6). They are never depicted with mensuration equipment, but are described with capacity vessels more often than any group of actors (Table 7, Table 8). Their objects are almost never described adjectivally. Anonymous humans collectively take almost all the different professional titles of literacy and numeracy, but especially *dub-sar* ‘scribe’ – as frequently as goddesses – and *um-mi-a* ‘scholar’ – more often than any other group of actors (Table 9). They most often *sar* ‘write’ – second only to kings – but never measure (*gid₂*, *raḥ₂*) (Table 10). In short, anonymous humans tend to be scholars or scribes who write with unadorned

writing equipment and do things with capacity vessels, but do not measure and rarely weigh or keep accounts.

A dozen literate and numerate goddesses, represented primarily by Nisaba but also Inana and Ninlil (Table 2), are unsurprisingly found primarily in myths and hymns (Table 1). They own or perfect (*šu du*₇) a wide variety of writing materials and mensuration equipment – more twice as often as kings or anonymous humans – much of which is made of lapis lazuli or similarly heavenly materials (Table 6, Table 7). On the other hand, goddesses have nothing to do with weighing or capacity measures (Table 8). They are much less likely to carry professional titles than human actors, but more so than gods or kings (Table 9). Most frequently they are called *dub-sar* ‘scribe’ (often with high-status descriptors) yet paradoxically they never *sar* ‘write’. They even *šid* ‘count’ less often than gods do, but *im gub* ‘inscribe clay’ and carry out measuring activities more frequently than any other group of actors (Table 10). To recap, literate and numerate goddesses (mostly in the person of Nisaba) tend to be portrayed as majestic (*maḥ*) scribes who receive, own, and perfect heavenly writing and measuring tools, and can also put them to a range of uses.

Half a dozen Ur III and early Isin kings, found by definition only in royal hymns, have a similar profile to the goddesses (Table 1, Table 4). They too are associated with many different writing and mensuration tools, some of which are lapis, less frequently than the goddesses but more often than any other group of actors (Table 6, Table 7). Like the goddesses, kings have little to do with weighing or capacity equipment (Table 8). They are called *dub-sar* ‘scribes’ almost as frequently as goddesses and anonymous humans, usually with adjectives connoting skill. Kings and goddesses part company in the actions they carry out. The kings *sar* ‘write’, more than either other group of human actors, but never *im gub* ‘inscribe clay’ and measure only occasionally (Table 10). In a nutshell, literate and numerate kings are collectively shown as skilful scribes who use their heavenly writing tools far more than their mensuration equipment.

A dozen gods, especially Enki and Nisaba’s consort 𒀭aia, are found in literate and numerate contexts, particularly in royal and divine hymns (Table 1, Table 3). They are associated with writing materials (almost exclusively *dub* ‘tablets’ and *im* ‘clay’) less frequently than any group of actors except named humans (Table 6). Neither do they have much to do with mensuration (Table 7). Instead, the gods are depicted with weighing equipment and capacity vessels almost as commonly as anonymous humans (Table 8). They attract professional titles less frequently than any other group except heroes, although the rare *šid-du*₃ ‘accountant’ is applied only to gods (Table 9). They

do indeed *šid* ‘count’ more than any other group of actors, but measure rather less often (Table 10). Like goddesses, they never *sar* ‘write’ but occasionally *im gub* ‘inscribe clay’. To sum up, the gods tend to be numerate but not particularly literate. They avoid writing and mensuration equipment and rarely carry professional titles, but they count, weigh, and use measuring vessels.

The named humans attested in this dataset are mostly found in literary letters and ‘wisdom’ literature (Table 1). They have little to do with writing or measuring equipment of any kind (Tables 6–8) but sometimes *sar* ‘write’ or *šid* ‘count’ (Table 10). Second only to anonymous humans, though, they are frequently given professional titles, especially *dub-sar* ‘scribe’ and *um-mi-a* ‘scholar’ (Table 9). The four heroes in the dataset are necessarily attested only in epics and historical narratives (Table 1, Table 5). They are associated with various writing media, especially *im* ‘clay’ (Table 6), but not metrological equipment (Table 7, Table 8). They carry no professional titles and do not perform literate or numerate actions (Table 9, Table 10).

Having identified the four most prominent groups of literate and numerate actors in the ETCSL corpus, and having drawn out their distinguishing characteristics, it is time to change the focus from the literature itself to scribal training, and to ask what implications these findings have for understanding the images of literacy and numeracy that were absorbed by the students of Sumerian literature in House F.

3. Images of literacy and numeracy in House F

3.1 The curricular clusters

The first half of this chapter was concerned primarily with characterizing the different groups of literate and numerate actors in the ETCSL corpus as a whole. I now turn to the messages conveyed by the curricular clusters of compositions known from House F in eighteenth-century Nippur (Table 11).

It is immediately apparent that the House F compositions, taken collectively, are far more concerned with literacy and numeracy than are literary works only found elsewhere, as measured by the mean number of attestations per (edited) composition in each cluster. Yet even within the house there are dramatic differences between the clusters. As Vanstiphout (1979: 126) anticipated, the Tetrad puts particularly strong emphasis on images of writing. By contrast, neither the Decad nor Letter Collection B shows more than an average concern with literacy or numeracy. But now it is strikingly clear that the other compositions found there – the House F Fourteen

and the ‘others’ – were chosen (presumably amongst other reasons) for their unusually high density of references to both literacy *and* numeracy. Given that the twelve House F compositions currently missing from the ETCSL corpus are predominantly *e₂-dub-ba-a* works about scribes and hymns to the literate and numerate king Išme-Dagan, it is likely that the actual rate of attestation is in fact even higher.

Table 11. Attestations of literacy and numeracy in the curricular clusters of House F

	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>	<i>Compositions</i>	<i>Mean</i>
Tetrad	13	3	9	3	28	4	7.0
Fourteen	11	13	24	6	54	11	4.9
Other F	27	20	38	21	106	23	4.6
Decad	3	2	2	6	13	10	1.3
LC B	5	–	11	5	21	23	0.9
Total F	59	38	84	41	222	71	3.1
Non-F	44	37	24	33	138	283	0.5
Total	103	75	108	74	360	354	1.0

Examining the groups of literate and numerate actors featured in the various curricular clusters reveals further interesting patterns (Table 12).

Table 12. Attestations of literate and numerate actors in the curricular clusters of House F

	<i>Goddess</i>	<i>God</i>	<i>King</i>	<i>Hero</i>	<i>Named human</i>	<i>Anon. human</i>	<i>Other</i>	<i>None</i>	<i>Total</i>	<i>Mean</i>
Tetrad	16	1	5	–	–	5	1	–	28	7.0
Fourteen	9	1	8	–	–	24	2	10	54	4.9
Other F	26	19	16	4	3	22	6	10	106	4.6
Decad	4	2	6	–	–	–	–	1	13	1.3
LC B	–	–	–	–	14	4	–	3	21	0.9
Total F	55	23	35	4	17	55	9	24	222	3.1
Non-F	23	25	16	11	18	25	5	15	138	0.5
Total	78	48	51	15	35	80	14	39	360	1.0

Goddesses account for over half the instances in the image-dense Tetrad, attested three times as often as anonymous humans or kings. Conversely, in the Fourteen there are three times as many attestations of anonymous humans as of goddesses or kings. Gods, heroes, and named humans feature in neither cluster. The Decad is concerned exclusively with divine and royal literacy and numeracy, while Letter Collection B necessarily focuses on humans. The four main groups of actors are distributed unusually evenly across the ‘other’ compositions from House F. Given that some 60% of the whole dataset comes from House F compositions, kings and ‘other’ actors are strongly over-represented in the House F corpus, while gods, heroes, and named humans are under-represented.

The clusters are discussed here in order of their image density. The Tetrad was certainly the first set of literary works that a typical scribal student could be expected to meet, and the sequence of the Decad is fairly well established, but beyond that almost nothing is known of literary curricular order, or if such a concept even existed.

3.2 The Tetrad

The four hymns of the Tetrad served as a transition from elementary scribal education to more advanced work on Sumerian literature (Tinney 1999: 162–168). Only *Lipit-Eštar B* (c.2.5.5.2) and *Enlil-bāni A* (c.2.5.8.1) have been identified at House F; indeed manuscripts of *Iddin-Dagan B* (c.2.5.3.2) and *Nisaba A* (c.4.16.1) from anywhere in Nippur are exceedingly rare (Robson 2001: 52–53). Each of the first three contains at least one passage on Nisaba’s fostering of scribal skills, either in the king himself or in the students of the *e₂-dub-ba-a* ‘tablet house’, while the fourth describes Nisaba as scribe. Those concerns are reflected in the frequent collocation of writing tools with goddesses (in fact invariably Nisaba) and kings (Table 13).

Table 13. Attestations of literacy and numeracy in the Tetrad

	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Goddess	7	3	5	1	16
Anon. human	1	–	3	1	5
King	3	–	1	1	5
God	1	–	–	–	1
Other	1	–	–	–	1
Total	13	3	9	3	28

The *locus classicus* for divine patronage of royal literacy is *Lipit-Eštar B* 18–24, addressed to the king himself:

18. ^dnisaba munus ul-la gun₃-a
19. munus zid dub-sar nin niġ₂-nam zu
20. si-zu im-ma si ba-ni-in-sa₂
21. šag₄ dub-ba-ka gu-šum₂ mi-ni-in-sag₉-sag₉
22. gi-dub-ba kug-sig₁₇-ka šu mu-ni-in-gun₃
23. gi-1-nindan eš₂-gana₂ za-gin₃
24. ġiš-as₄-lum le-um igi-ġal₂ šum₂-mu ^dnisaba-ke₄ šu daġal ma-ra-an-dug₄

18. Nisaba, woman sparkling with joy,
19. Righteous woman, scribe, lady who knows everything:
20. She leads your fingers on the clay,
21. She makes them put beautiful wedges on the tablets,
22. She makes them (the wedges) sparkle with a golden stylus.
23. A 1-rod reed and a measuring rope of lapis lazuli,
24. A yardstick, and a writing board which gives wisdom: Nisaba generously bestowed them on you.

The opening description of Nisaba puts equal stress on her femininity and on her wisdom. She is twice associated with the word *gun₃* ‘to sparkle’ and the tools she gives Lipit-Eštar are also made of high value, sparkling materials. Winter (1994) has cogently discussed the divine qualities of lustre and radiance in early Mesopotamia. This is clearly the effect sought here; lapis sparkles like the stars in the heavens at night. Indeed, the opening line of *Nisaba A* (c.4.16.1.1) addresses the goddess as, *nin mul-an-gin₇ gun₃-a dub za-gin₃ šu du₈* ‘Lady sparkling like the stars of heaven, holding a lapis lazuli tablet!’ And later in the same hymn the image recurs:

29. e₂-ĜEŠTUG₂.^dNISABA-ke₄ ġal₂ nam-mi-in-taka₄
30. dub za-gin₃ dub₃-ba nam-mi-in-ġar
31. dub mul-an kug-ta šag₄ im-ma-da-kuš₂-u₃
32. aratta^{ki} e₂-za-gin₃-na šu-ni-še₃ mu-un-ġar

29. (Enki) has opened up Nisaba’s House of Wisdom.
30. He has placed the lapis lazuli tablet on her knees,
31. For her to consult the holy tablet of the heavenly stars.
32. In Aratta he has placed E-zagin (Lapis House) at her disposal.

We have already seen that Nisaba’s and Inana’s mensuration equipment is mostly of lapis (Table 7), while across the ETCSL lapis collocates most

frequently with Inana of all the deities (but note that Enlil's temple Ekur is often described as made of lapis too). The 1-rod reed – 6 metres long – is also the exclusive property of goddesses. Further, the two objects often collocate in the goddesses' presence, as they do here. Together they give a sense of glamour, impracticality and enormity: one is reminded of early Mesopotamian images in which the deities tower over the humans depicted with them, for instance on the Stele of the Vultures.

But what does king Lipit-Eštar do with the wisdom that Nisaba bestows on him through literacy and numeracy? He establishes and dispenses justice, as the next lines show:

25. ^dli-pi₂-it-eš₄-tar₂ dumu ^den-lil₂-la₂-me-en
 26. niĝ₂-zid niĝ₂-gen₆-na pa bi₂-e-e₃
 27. en sag₉-zu an-zag-še₃ na-dul

25. Lipit-Eštar, you are Enlil's son.
 26. You have made righteousness and truth appear.
 27. Lord, your goodness covers everything as far as the horizon.

And so on, for the next twelve lines. *Enlil-bāni A* follows the same schema: Nisaba is introduced in lines 37–48; she bestows literate and numerate wisdom on the king in lines 49–56; he establishes and dispenses justice in lines 57–91. *Iddin-Dagan B* exhibits the same themes in a different structure: he is already dispensing numerate justice before Nisaba is acknowledged as its source:

26. niĝ₂-si-sa₂ ka-ga₁₄ mu-e-ni-ĝar
 27. niĝ₂-du₇ pa bi₂-i-e₃
 28. in mu-e-dub-dub ki mu-e-sur-sur
 29. ki-en-gi ki-uri gu₂ bi₂-i-zig₃

26. You (Iddin-Dagan) have placed justice in every mouth,
 27. You have made propriety appear.
 28. You have fixed the boundaries and marked the borders.
 29. You have made Sumer and Akkad lift their heads (from oppression).

64. ĝeštug₂ dirig dub ^dnisaba-ke₄ šum₂-ma-zu
 65. e₂-dub-ba-a im-ma muš₃ nam-ba-an-tum₂-mu

64. May the exceeding wisdom that Nisaba's tablets gave you
 65. Never stop working on the clay in the tablet house.

In short, the message of the Tetrad is remarkably consistent and straightforward, as befits its elementary pedagogical character: Enki has granted heavenly wisdom to Nisaba, who brings literacy and numeracy to kings and scribes in order for them to ensure just rule. As all four compositions carry essentially the same message, perhaps in this light it is not surprising that only a couple of them appear to have been used in House F. More advanced curricular clusters, however, send more complex signals.

3.3 The Fourteen

The Fourteen is simply defined as the cluster of compositions attested as frequently as the Decad in House F, namely in about twenty manuscripts each (Robson 2001: 54–55). By contrast the constituent compositions of the Tetrad, Letter Collection B, and other literary works found in the House are witnessed by an average of two manuscripts; presumably they should be considered as ‘extra-curricular’ compositions (Veldhuis 2004: 89–92), used to supplement the House F teacher’s regular pedagogical repertoire of the Decad and Fourteen. The latter comprises a mixture of mythical narratives, city laments, ‘wisdom’ compositions, a hymn to Šulgi, and four *e₂-dub-ba-a* works, three of which are not yet in the ETCSL. Every single one of them mentions literacy and numeracy in some way, if only in the final doxology; collectively the density of relevant terms is ten times higher than compositions not found in House F (Table 11). The overall focus is on anonymous humans (Table 14), an emphasis which would be further heightened if it were possible to include the three missing works in this analysis.

Table 14. Attestations of literacy and numeracy in the House F Fourteen

	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Anon. human	3	5	16	–	24
Goddess	4	–	4	1	9
King	3	1	3	1	8
Other	–	1	1	–	2
God	–	–	–	1	1
None	1	6	–	3	10
Total	11	13	24	6	54

Anonymous humans are the protagonists of the *e₂-dub-ba-a* works, which are all about the appropriate behaviour and duties of scribes (Volk 2000). Such images are also used in other types of narrative, for instance in *Gilgameš*, *Enkidu and the Netherworld* (c.1.8.1.4.263) when discussing the fate

of the dead: *dub-sar sag₉-ga-gin₇ a₂-ni ġal₂ bi₂-in-taka₄ e₂-gal si sa₂-bi ba-an-ku₄-ku₄* ‘Like a good scribe, (the father of five) is tireless, he enters the palace easily.’ *The Debate between the Supervisor and the Scribe* (c.5.1.3) ironically constructs an ideal image of a humble, conscientious scribe through the self-description of a boastful, bossy supervisor. He rebukes a junior colleague, who resentfully replies:

36. nam-dub-sar-ra a-na mu-e-pad₃-da-zu šu-za ba-ni-in-šum₂
 37. e₂-za ħe₂-bi₂-gub-be₂-en ud na-me niġ₂ ġa₂-la dag-ga-ġu₁₀-uš sa₂ ba-ra-am₃-mu-ri-ib-dug₄
 38. geme₂ arad₂ ġiri₃-sig₁₀-ga e₂-za kiġ₂-gi₄-a ħe₂-bi₂-ne-gi₄
 39. šukur₂-bi tug₂-bi u₃ i₃-ba-bi šag₄-bi ħa-ma-dug₃-ga
 40. a-ra₂-bi-še₃ kiġ₂-gi₄-a ħe₂-bi₂-in-ne-gi₄ e₂ lugal-ka arad₂ ba-ra-bi₂-in-us₂
 41. gaba ud-ġa₂ ħe₂-bi₂-ak udu-gin₇ ħe₂-eb-us₂-u₃-nam
-
36. Whatever you revealed of the office of scribe has been given back to you.
 37. You placed me in charge of your household and I have never served you with idleness.
 38. I have assigned work to the maidservants, servants, and attendants in your household.
 39. I have kept them happy with rations, clothing, and oil rations.
 40. I have assigned the order of their work to them, so that you do not need to follow the servants around in your master’s house.
 41. I am doing things from the break of day; I follow them round like sheep.

The scribe finally gains his superior’s approbation and is rewarded with the right to teach others – under Nisaba’s guidance of course.

The Fourteen also acknowledges that other goddesses are literate. In *Dumuzid’s Dream* (c.1.4.3.21), for instance, Dumuzid calls for Ĝeština, *dub-sar im zu-ġu₁₀ tum₂-mu-un-ze₂-en nin₉-ġu₁₀ tum₂-mu-un-ze₂-en* ‘Bring my scribe who knows about clay! Bring my sister!’ However, the only pertinent reference to a god is in a non-literate context, when Ninurta ‘counted (*bi₂-ib₂-šid-de₃*) the characteristics (?)’ of the stones he had just defeated in battle (*Ninurta’s Exploits*, c.1.6.2.436). Rather, the gods employ others in literate and numerate professions. For instance, in *The Debate between the Hoe and the Plough* (c.5.3.1), the Plough proclaims:

21. ġe₂₆-e ġiš^{is} apin-e a₂ gal-e dim₂-ma šu gal-e keše₂-da
22. saġ-tun₃ maḥ a-a ^den-lil₂-la₂-me-en

21. I am the Plough, constructed by great strength, bound together by great hands.
22. I am the majestic land registrar of Father Enlil!

But when the Hoe wins the debate at the end of the poem, Enlil says:

189. $\bar{g}i\bar{s}$ al-e ^dnisaba ugula-a-ni na-nam ^dnisaba nu-banda₃-a-ni na-nam
190. dub-sar-e ki \bar{g} ₂ šu-mu-un-il₂ ki \bar{g} ₂ šu-mu-un-il₂

189. Is not Nisaba the Hoe's overseer? Is not Nisaba its supervisor?
190. The scribe will register your work, he will register your work.

So literate and numerate management remains the responsibility of goddesses and anonymous humans after all.

In *Šulgi B* (c.2.4.2.02), the only royal hymn of the Fourteen, Nisaba is also given credit for the king's learning, just as in the Tetrad:

13. tur-ra- $\bar{g}u$ ₁₀-ne e₂-dub-ba-a-a-am₃
14. dub ki-en-gi ki-uri-ka nam-dub-sar-ra mi-ni-zu
15. nam-dumu-gir₁₅ \bar{g} e₂₆-e-gin₇-nam im nu-mu-un-sar
16. nam-dub-sar-ra ki nam-kug-zu-ba lu₂ im-mi-re₆-re₆
17. zi-zi-i \bar{g} a₂- \bar{g} a₂ šudum ni \bar{g} ₂-šid-de₃ zag im-mi-til-til
18. ^dnanibgal sig₇-ga ^dnisaba₂-ke₄
19. \bar{g} eštug₂ \bar{g} izzal₂-la šu da \bar{g} al ma-ni-in-dug₄
20. dub-sar \bar{g} al₂ taka₄-a ni \bar{g} ₂-e nu-dib-be₂-me-en

13. When I was small, I was at the tablet house,
14. Where I learned the office of scribe from the tablets of Sumer and Akkad.
15. None of the citizens could write on clay as well as me.
16. There where people regularly went for instruction in the office of scribe,
17. I completed my learning in subtracting, adding, reckoning and accounts.
18. The fair Nanibgal, Nisaba,
19. Generously bestowed on me wisdom and understanding.
20. I am an experienced scribe who does not let anything pass him by.

But unlike the three royal hymns of the Tetrad, royal justice is not the immediate outcome of scribal schooling under divine patronage. *Šulgi* goes on to boast of his physical abilities, military skills, and multi-lingual fluency (Rubio 2006) for over a hundred lines before returning to more cultured attainments. It is another hundred lines before he mentions his competence as a judge.

So, where the Tetrad focused in on the royal acquisition of literacy and numeracy through Nisaba's heavenly guidance for the administration of justice, the Fourteen also shows both goddesses and anonymous humans in professional action. Thus the message moves on from the divine origins and ultimate purpose of literacy and numeracy to correct deportment in its professional deployment. Scribal identity and good conduct count for more than individualism and boastfulness; only the long-dead, long-deified king Šulgi can break that taboo.

3.4 Other House F compositions

Thirty-two Sumerian literary compositions found in House F have not been assigned to curricular clusters (Robson 2001: 56–57). They range across the generic spectrum: myths and epic narratives, city laments, hymns to kings (all but one to Išme-Dagan) and goddesses, debate poems, and *e₂-dub-ba-a* dialogues. All but nine (mostly hymns to Išme-Dagan and *e₂-dub-ba-a* dialogues) are in the ETCSL corpus; sixteen of them treat literacy and numeracy. Collectively their density of reference to literacy and numeracy is almost as high as the Fourteen (Table 15). The four main groups of actors are given relatively equal weight, but measuring tools are particularly prominent amongst the objects, titles, and actions: the attestations in this cluster of compositions account for almost half of the terms in that category across the dataset as a whole.

Table 15. Attestations of literacy and numeracy in other compositions from House F

	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Goddess	6	14	4	2	26
Anon. human	5	6	6	5	22
God	3	9	2	5	19
King	6	5	3	2	16
None	3	2	–	5	10
Other	–	1	5	–	6
Hero	3	–	–	1	4
Named human	1	1	–	1	3
Total	27	38	20	21	106

Amongst these compositions the big set piece on literacy and numeracy comes towards the end of *Išme-Dagan A+V* (c.2.5.4.01):

359. nam-dub-sar ki nam-galam-ma [...] usu bi₂-DU-a
 360. /šag₄ dub-ba šudum niġ₂-šid buru₃ daġal-la kurum₇-bi mu-bur₂-ra
 361. /igi-gub\bu gana₂ gen₆-ne₂ ġiš-as₄-lum gi e₃
 362. /ki-gub[?]\ba ki igi il₂-la-ġu₁₀-še₃ temen šu₄-ga kalam ri-ġa₂
 363. /šu sag₉\ šu tam-tam-ma-ġa₂
 364. /dub\ ki-en-gi ki-uri-ka sar-re-bi mu-un-zu-a
 365. [e₂]/dub\ba-a šu mi-ni-mul-mul-la
 366. [gi]/dub[?]\ba dub nam-dub-sar-ra zag im-mi-til-la
 ...
 375. um-mi-a ŠIR₃/NAR ġar\ġar-ġu₁₀-ne
 376. šir₃ gal-gal-ġa₂ /mi-ni\ġar-re-eš-a
 377. za₃-mi₂-ġa₂ mi-/ni-in\pad₃-pad₃-de₃-eš
359. That the office of scribe, in the place of skilfulness, ... strength;
 360. The contents of tablets, reckoning and accounts, checking the inspections of depths and breadths,
 361. Constants for standardizing the areas of fields, and laying out the reed yardstick;
 362. That I have established the foundations, directed the Land, at the location, my chosen place;
 363. That with my good hands, my pure hands,
 364. I know how to write the tablets of Sumer and Akkad;
 365. That I have shone like a star in the tablet house
 366. By completely mastering the stylus and tablets of the office of scribe:
 ...
 375. The scholars and the composers of my *nar* songs
 376. Have put in my great songs
 377. And have declared in my hymns.

But in stark contrast to the royal hymns of the Tetrad and Fourteen, the emphasis is not on the acquisition of skills through divine patronage; indeed Nisaba is conspicuously absent from the substantial extant passages of this hymn. Neither is just rule the stated aim, as Išme-Dagan has already extolled his abilities as judge in lines 192–222. Rather, the goal is the public acknowledgement and celebration of Išme-Dagan's many talents, literary and numeracy amongst them.

The goddesses establish their literate and numerate role elsewhere, however. In *Enki and the World Order* (c.1.1.3) Enki determines Nisaba's destiny:

412. nin₉ e-ġu₁₀ kug^d nisaba-ke₄
 413. gi-1-nindan šu ħe₂-em-ma-an-ti
 414. eš₂ za-gin₃ a₂-na ħa-ba-an-la₂

415. me gal-gal-e gu₃ ḥa-ba-an-de₂-e
 416. in ḥe₂-dub-e ki ḥe₂-sur-re dub-sar kalam-ma ḥe₂-em
 417. naḡ gu₇ diḡir-re-e-ne-ke₄ šu-ni-a ḥe₂-en-ḡal₂

412. My illustrious sister, holy Nisaba,
 413. Is to receive the 1-rod reed.
 414. The lapis lazuli rope is to hang from her arm.
 415. She is to proclaim all the great divine powers.
 416. She is to fix boundaries and mark borders. She is to be the scribe of the Land.
 417. The gods' eating and drinking is to be in her hands.

Similarly, in *Enlil and Sud* (c.1.2.2) Enlil bestows literacy and numeracy on his bride Ninlil as a wedding present:

165. nam-dub-sar-ra dub mul-la gun₃-a gi-dub-ba ḡiš-dub-dim₂
 166. niḡ₂-šid šudum zi-zi-i ḡa₂-ḡa₂ eš₂ za-gin₃ X [...]
 167. saḡ^{ḡis} gag gi-1-nindan bulug sig₁₀-/ge₅\ [...]
 168. šu mi-ri-in-du₇

165. The office of scribe, the tablets sparkling with stars, the stylus, the tablet board,
 166. Reckoning and accounts, adding and subtracting, the lapis lazuli measuring rope, the
 167. The head of the peg, the 1-rod reed, the marking of the boundaries, and the
 168. You have been perfected by them.

In both passages, literacy is subservient to mensuration: Nisaba and Ninlil are given the means to measure land justly and accurately, resulting (in Nisaba's case) in the equitable distribution of the harvest.

Inana's Descent (c.1.4.1) sheds a different light on the importance of mensuration to the great goddesses' self-identity. When Inana enters the Underworld it is only at the penultimate gate that she gives up her reed and rope to the doorkeeper:

154. abula 6-kam-ma ku₄-ku₄-da-ni-ta
 155. gi-1-nindan eš₂-gana₂ za-gin₃ šu-[na] lu₂ ba-da-an-ze₂-er
 156. ta-am₃ ne-e
 157. si-a^d inana me kur-ra-ke₄ šu al-du₇-du₇
 158. ^dinana ḡarza kur-ra-ke₄ ka-zu na-an-ba-e

154. When she entered the 6th gate,

155. The 1-rod reed and lapis lazuli measuring rope were snatched from her hand.
 156. ‘What is this?’
 157. ‘Be silent, Inana, a divine power of the underworld has been fulfilled.
 158. ‘Inana, you must not open your mouth against the rites of the underworld.’

This extract is part of a much longer passage in which Inana is stripped of her divinity in order to enter the Underworld as one of the powerless dead. But it may also be a question of ensuring that she does not usurp the goddess Ninazimua as scribe of the Underworld. When in *Ur-Namma A* (c.2.4.1.1) the king descends to the Underworld on his death he gives gifts to the deities who dwell there:

123. ^{tu}g₂saḡšu ḡeštug₂ maḥ lu₂ zu ḡiš-nu₁₁-gal
 124. gi-dub-ba zag-bar-ra niḡ₂ nam-dub-sar-/ra\ke₄
 125. eš₂-gana₂ /za\gin₃ gi-1-nindan X X
 126. /nitalam\ -a-ni /nin-^da-zi-mu₂\-[a]
 127. dub-[sar maḥ dumu] [a]-ra-li-[ra]
 128. [sipad ur-^damma-ke₄ e₂-gal-a-na ḡiš im-ma-ab-tag-ge]

123. A headdress of majestic wisdom, of a sage, made of alabaster
 124. A stylus of scrap metal (?), symbol of the office of scribe,
 125. A lapis lazuli measuring rope, and a ... 1-rod reed
 126. To (Ninḡišzida's) spouse, Ninazimua,
 127. The [majestic] scribe, citizen of Arali
 128. [The shepherd Ur-Namma offered in her palace.]

Elsewhere in the House F compositions, gods are acknowledged to be literate and numerate too. In *Nanše A* (c.4.14.1) Nisaba serves as Nanše's chief of staff on inspection days, assisted by her spouse Ḥaia:

98. dub-sar maḥ-a-ni ^dnisaba-ke₄
 99. dub kal-kal dub₃-ba nam-mi-in-ḡar
 100. gi-dub-ba kug-sig₁₇ šu ba-ši-in-ti
 101. ^dnanše-er saḡ-e gu dili-a si mu-na-ab-sa₂-e

98. Her majestic scribe Nisaba
 99. Places the precious tablets on her knees;
 100. She takes a golden stylus in her hand.
 101. She organises the servants into a single line for Nanše.

110. lugal saḡ zid-da en₃ tar-tar ^dḥa-ia₃ lu₂ dub-ba-ke₄

111. saġ zid nin-a-na bi₂-in-dug₄-ga im-ma bi₂-in-gub-be₂
 112. geme₂ nin-a-na nu-um-mi-in-dug₄-ga im-ma bi₂-in-kid₂-kid₂
110. The king who cares for the faithful servants, Ĥaia, the man with the tablets,
 111. Inscribes on clay he who is said to be his lady's faithful servant.
 112. He erases from the clay she who is said not to be her lady's maidservant.

Otherwise, numerate gods garner only passing mention. In *Enlil and Ninlil* (c.1.2.1.116) Ninazu is described as *lugal eš₂-gana₂ gid₂-da šag₄ mu-na-ni-ri* 'the king who lays out long measuring ropes'. At the beginning of *Enki and the World Order* (c.1.1.3.17) Enki keeps time: *ud šid-e itid e₂-ba ku₄-ku₄ mu šu du₇-du₇-da* 'Counting the days and putting the months in their houses, to complete the years'. A longer passage can be found in *Nanše A* (c.4.14.1). First Nanše casts opprobrium on those who set out to deceive, including, *uš ġar-ra šu i-ni-ib-bal-e-a in dub-ba kur₂-ra* 'he who changes a firm foundation or alters an established boundary' (line 139) or *na₄ tur-re na₄ gu-la-ar šu ba-an-zig₃-ga ġis^{is} ba-an tur-re ġis^{is} ba-an gu-la-ar šu ba-an-zig₃-ga* 'he who substitutes a small weight for a large weight, or substitutes a small *ban* measure for a large *ban* measure' (lines 142–143). Her entourage collectively legislate against this:

233. sirara^{ki}-še₃ diġir lagaš^{ki}-a gu₂ mu-un-na-si-si
 234. na₄ gen₆-na kug la₂-e-de₃ ġ^{is}gur gen₆-na gub-bu-de₃
 235. ġ^{is}ba-an inim gen₆-na kur-kur-ra [šu] ba-an-ġa₂-ġa₂-ne
233. In Sirara the gods of Lagaš gather around her.
 234. To weigh silver with standard weights, to standardize the size of *gur* measures,
 235. They establish an agreed *ban* measure throughout the lands.

Named human actors are mentioned in literate and numerate contexts even more rarely than gods. In *Sargon and Ur-Zababa* (c.2.1.4.B.30) Ur-Zababa summons Beliš-tikal as *gal-simug lu₂ šag₄-ga de₆-a-ġu₁₀ im sar-sar* 'chief smith, man of my choosing, who can write on clay'. Beliš-tikal fails in his orders to kill Sargon, so another murder plot is hatched, involving the first tablet envelope: *ud-bi-ta inim im-ma gub-bu ħe₂-ġal₂ im sig₉-sig₉-ge ba-ra-ġal₂-la-lam* 'At that time, putting words on clay existed, putting them into envelopes did not yet exist' (line B.56). The sources are few and fragmentary, but presumably the master craftsman's literacy is no reflection of any

‘historical reality’ but rather a plot device to ensure narrative continuity between the assassination attempts.

Capacity measures are mentioned several times in *The Debate between Summer and Winter* (c.5.3.3), along with professional titles. Summer brings to Enlil, *gib gu₂-nida gu₂ tur gu₂ gal-bi^{gi} gur dub-e dab₅-ba* ‘wheat, hulled barley, small beans and large beans gathered in heaped *gur* baskets’ (line 77). In Winter, Summer states, *dub-sar tur bar-am₃ niġ₂-gig-ga* ‘The young scribe is neglectful, which is an abomination’ (line 162). It proclaims, *saġ-tun₃ maḥi a-a^den-lil₂-la₂-me-en* ‘I am the majestic land registrar of father Enlil’ (line 176), just as Plough does in *Hoe and Plough* (c.5.3.1) above. But Winter retorts that Summer is nothing but *šar₂-ra-ab-du₈ ni₂ bur₂-bur₂-ra šag₄ a-šag₄-ga nu-zu* ‘a bragging administrator who does not know the extent of the fields’ (lines 195, 293). Enlil judges that Winter has won the debate.

Measuring tools and literate professionals are occasionally employed in similes. In *Lugalbanda* (c.1.8.2.2.122) the Anzud bird says to his chick, who has just been fêted by Lugalbanda, *murgu-zu dub sar-sar-re-me-en* ‘Your back is as straight as a scribe’s!’ A magnificent date palm is described in *Inana and Šu-kale-tuda* (c.1.3.3.80–81): *ġi^špeš-tur-ZI-bi eš₂-gana₂-a-kam gan₂-ne lugal-la-ka me-te-aš im-mi-ib-ġal₂* ‘its shoots are (like) a measuring rope; they are fit for the king’s field’.

To sum up, while in the ‘other’ House F compositions royal numeracy and literacy have been detached from patronal goddesses and the implementation of justice, the great goddesses Nisaba, Inana, and Ninlil otherwise dominate the scene, through the length and vividness of the passages about them. When goddesses use their literate and numerate skills it is in the service of others, for domestic management or to uphold justice. With the exception of Ĥaia, gods are not literate but are infrequently involved in counting, measurement, or the regulation of metrology. With the exception of boasting Summer, and perhaps the assassin Beliš-tikal, there are few negative images of literacy and numeracy in the literary works from House F.

3.5 The Decad

The Decad (Tinney 1999: 169–170) is superficially similar in size, distribution, and content to the House F Fourteen. It comprises mythological narratives, hymns to deities, rulers and temples, and a linguistically challenging work about the Hoe. However, it is concerned not so much with constructing the self-images of scribes as with creating a sense of the wider ideological

context in which they operated (Black et al. 2004: 299–352). It is therefore relatively unfurnished with images of literacy and numeracy (Table 16).

Table 16. Attestations of literacy and numeracy in the Decad

	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
King	1	1	2	2	6
Goddess	2	1	–	1	4
God	–	–	–	2	2
None	–	–	–	1	1
Total	3	2	2	6	13

In fact only half of the ten Decad compositions mention literacy or numeracy and those few attestations all come from the divine and royal spheres. In *Šulgi A* (c.2.4.2.01.19) the king mentions in passing that, *dub-sar gal-zu* ^d*nisaba-kam-me-en* ‘I am Nisaba’s skilful scribe’ but the main thrust of the hymn is to establish his physical prowess. *Lipit-Eštar A* (c.2.5.5.1.39) uses a similar motif – *dub-sar a-ra₂ zu* ^d*nisaba-kam-me-en* ‘I am Nisaba’s competent scribe’ – as part of a long enumeration of the king’s relationship with each of the deities in turn. *The Keš Temple Hymn* (c.4.80.2.112) says of the temple, *dub-ba sar-sar šu-še₃ al-ḡa₂-ḡa₂* ‘written on tablets, it was held in (Nisaba’s) hand’. An explicit link between literacy and justice is made in *Nungal A* (c.4.28.1.77), when the goddess of prisons states, *im nam-til₃-la šu-ḡa₂ mu-un-ḡal₂ lu₂ zid bi₂-in-gub-be₂-en* ‘I hold the clay of life in my hand and I inscribe (the names of) the righteous men on it’, as does *Ḫaia* in *Nanše A* above.

3.6 Letter Collection B

The so-called Letter Collection B, identified and edited by Ali (1964), is a rather fluid grouping of around twenty short compositions whose exact constitution varied from time to time and place to place. Maximally 23 literary letters and other short works can claim membership of the collection, of which 19 are attested in House F, all in one or two manuscripts (Robson 2001: 57–58).³ Ten of them mention literacy or numeracy in some way (Table 17).

³ A further three literary letters were found in House F that do not, by Ali’s criteria, belong to the Collection. c.3.1.17 makes no mention of literacy or numeracy but one passage in it mimics the structure and content of a school mathematics problem

Table 17. Attestations of literacy and numeracy in Letter Collection B

	<i>Writing tools</i>	<i>Measuring tools</i>	<i>Professions</i>	<i>Actions</i>	<i>Total</i>
Named human	3	–	9	2	14
Anon. human	1	–	2	1	4
None	1	–	–	2	3
Total	5	–	11	5	21

The rate of attestation is similar to the Decad, but the actors concerned are not goddesses and kings but the named human protagonists of the letters and documents. Aba-indasa introduces himself to king Šulgi, *dub-sar-me-en na-du₃-a ab-sar-re-en* ‘I am a scribe and I write on stele’ (c.3.1.21.14). Lugal-nesaḡe calls himself, *dumu^d en-lil₂-al-sag₉ um-mi-a nibru^{ki}-a* ‘son of Enlil-alsag, scholar of Nippur’ and addresses his son Enlil-massu as, *ur-saḡ šag₄-tam-e-ne he₂-du₇ e₂-gal-la a₂-aḡ₂ ki-bi gi₄* ‘hero amongst administrators, ornament of the palace, who reinstates decrees’ (c.3.3.09.9, 6). Sometimes the correspondents are known only by their professional titles: c.3.3.04 and c.3.3.05 are sent to and from a city governor and a *saḡḡa* ‘temple administrator’.

The compositions more rarely touch on literacy and numeracy in action. The untitled Šamaš-ṭāb writes to Ilak-ni’id that, *2 gun₂ siki da-gal-tim-ma kug-bi ha-ra-da-šid* ‘I have counted the cost of 2 loads of purple wool for you’ and *kug dili-dili-zu saḡ-bi har-rab-dab₅ im-ma hu-mu-ra-ab-tag* ‘Your loose silver and the capital have been held for you and recorded on clay’ (c.3.3.08.13, 17). c.5.7.a.1 announces that *kišib mu sar ur-DUN dam-gar₃-ra u₂-gu ba-an-de₂* ‘A seal inscribed with the name of Ur-DUN the merchant has been lost’, as witnessed by a whole host of named professionals. Named humans, it seems, may carry grand titles but engage in only the most basic of literate and numerate activities.

At the risk of oversimplification, it seems as though the various curricular clusters attested at House F conveyed rather different messages about the origins, functions, and values of literacy and numeracy. The introductory Tetrad presents a simple picture of good kings administering justice by means of literate and numerate skills bestowed on them by Nisaba. The most frequently attested curricular compositions, in the Decad and Fourteen, maintain the focus on Nisaba and the kings she supports but also explore the

(Robson 2002: 350–351). Compositions 3.2.08 and 3.3.32 are not yet in the online corpus.

role of the working scribe: ideally anonymous, obedient, efficient, and ready to pass on the same values to the next generation. Letter Collection B adds only trivially to the subject, but the extra-curricular ‘other’ compositions strongly reinforce the central role of goddesses and their heavenly equipment in the construction of literacy and numeracy in the service of domesticity and social justice.

4. Conclusions and consequences

In the light of this analysis, recent Assyriological concern with the aetiology of cuneiform writing as presented in *Enmerkar and the Lord of Aratta* (c.1.8.2.3) seems slightly beside the point, if the point is to recover ancient understandings of literacy. At least, that narrative of heroic invention during a diplomatic crisis is entirely at odds with the ideas presented to the scribal students of House F – who did not, as far as we know, even study that particular work. Indeed epic heroes hardly feature in the curricular construction of the ideals of literacy. Rather, the trainee scribes in that eighteenth-century schoolroom were taught to associate writing and mensuration with goddesses, above all Nisaba, the just kings of centuries before, and the self-effacing professional who ensures the smooth, fair running of households and institutions.

That conclusion has implications for the way we understand divine gender in early Mesopotamia as well as scribal gender and the ideology of literate numeracy. Recent works on early Mesopotamian goddesses have ignored this aspect of their gender almost entirely (e.g. Bahrani 2001; Parpola and Whiting 2002). Even studies that purport to be on this very topic do not address the evidence presented here (Harris 1990; Meier 1991). Maybe that absence from scholarly discourse is simply an artefact of the inaccessibility of Sumerian literature in the days before the searchable ETCSL corpus. There is certainly more work to be done on this topic: studies of *gun*₃ ‘to sparkle’ and *za-gin*₃ ‘lapis lazuli’ would be desirable, while terms relating to wisdom and justice – especially those derived from the verb *si sa*₂ ‘to be equal, straight’ – would repay in-depth exploration.

An initial survey suggests that in the Sumerian literary corpus judgement is overwhelmingly in the hands of gods: 21/26 attestations of *di-kud* ‘judge’ attach to gods, as do half the 56 instances of the verbs *di kud* ‘to judge a case’ and *ka-aš bar* ‘to render a verdict’ (counting collocations as single instances). A further quarter of these attestations are said of kings. Utu is the most frequently attested actor in these particular contexts, followed by Gilgameš and Inana, then An, Enki, Enlil, Nanna-Suen, and Ninurta. Amongst

the kings, those most often associated with judging are Ur-Namma and Šulgi, Išme-Dagan and Lipit-Eštar – exactly the kings who are most frequently associated with literacy and numeracy.

Now, the visual image most readily associated with just kingship is the hotly debated ‘rod and ring’; for the most recent treatment see Slanski (2007). There are two types of image featuring the ‘rod and ring’ in Ur III and Old Babylonian times: those depicting a king receiving them from a god (e.g. Ur-Namma and Nanna-Suen on the Ur-Namma stela; Hammu-rābi and Šamaš/Utu on Hammu-rābi’s law code; Zimri-Lim(?) and Ištar/Inana in the wall painting at Mari); and a naked goddess holding a ‘rod and ring’ in each hand (the Burney Relief). Collon (2005: 30–31, 39–45) has recently surveyed various proposals for the identity of this naked goddess and her iconography. Of particular interest is Jacobsen’s (1987) identification of her as Inana holding a 1-rod reed and a coiled up measuring rope on her way to the Underworld, based on a reading of *Inana’s Descent*. Collon (2005: 45) is reluctant to come down for or against this interpretation, but in the light of the analysis presented here it now seems indisputable. For just as the Burney Relief parallels the image of Inana descending, the royal presentation scenes parallel the passages in the royal hymns in which Nisaba bestows the reed and rope on kings as symbols of literate and numerate justice. The ‘rod and ring’ feature in no other type of visual scene, just as the reed and rope as literary motif are predominantly in the hands of goddesses and kings. But whereas in the *e₂-dub-ba-a* Nisaba reigned supreme, in public images she was appropriately substituted by the city deity. Slanski (2007), arguing from different data and with a different methodology, reaches the same conclusion about the identity of the ‘rod and ring’ with the measuring reed and rope.

The reed and rope, then, were public symbols of royal justice as well as scholastic ones, representing the fair mensuration of land amongst the people. For, as the young scribe Enki-manšum asserts in an *e₂-dub-ba-a* dialogue from House F which is not yet in the ETCSL corpus:

When I go to divide a plot, I can divide it; when I go to apportion a field, I can apportion the pieces, so that when wronged me have a quarrel I soothe their hearts and [...]. Brother will be at peace with brother, their hearts [...]. (5.4.1.30–32; Vanstiphout 1997: 589)

I have explored elsewhere the role of arithmetic, metrology, and mathematics in scribal education at House F (Robson 2002), including a brief survey of images of numeracy in curricular Sumerian literature. But this current study suggests that there is more to say. Just as Sumerian literature taught not only Sumerian literacy but also what it meant to be literate, Old Babylo-

nian mathematics carried similar messages about the abstract principles of numerate justice as embodied in the correct calculation of lines and areas. I shall return to this topic on another occasion (Robson forthcoming).

Finally, does the discovery of gendered literacy and numeracy amongst divine actors in the Sumerian literary corpus reveal anything at all about the contemporaneous ‘real’ world of the scribes? To be sure, we cannot simply infer the existence of female scribes from the prevalence of goddesses in that role in literary Sumerian. But equally the simplistic assumption that scribes and their students were all male (e.g. George 2005) no longer holds water. Records from Zimri-Lim’s palace in Mari document ten anonymous female scribes receiving oil and wool rations in the ‘harem’ and writing kitchen documentation, including royal menus, while princess Šīmātum received a personal scribe Šīma-ilat as part of her dowry in the 1760s BCE (Ziegler 1999). Several female scribes were active in nineteenth-century Sippar (Lion 2001). The best attested is Inana-amaĝu, whose father and sisters were also scribes. She wrote tablets for the judges in Šamaš’s temple, mostly legal cases involving the contested land and property of *nadītu* priestesses. And now four school tablets written by female scribal students during the reign of Samsu-iluna, probably also in Sippar, have been identified (Lion and Robson 2006). In other words, female scribes learned the standard student exercises, administered large households, and assisted in the maintenance of numerate justice: exactly what the images of goddesses in curricular compositions lead us to expect. Female scribes appear to have worked predominantly for female clients, but they existed nevertheless.

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