In a certain West Indian Isle, there stood a house and hard by a grove of trees. In the house there dwelt a vivisectionist, and on the trees a clan of anthropoid apes. It chanced that one of these was caught by the vivisectionist and kept some time in a cage in the laboratory. There he was much terrified by what he saw, deeply interested in all he heard; and as he had the fortune to escape at an early period of his case (which was numbered 701). and to return to his family with only a trifling lesion of one foot, he thought himself on the whole the gainer.

He was no sooner back than he dubbed himself doctor and began to trouble his neighbours with the question: Why are not apes progressive? -"I do not know what progressive means," said one, and threw a cocoanut at his grandmother. -"I neither know nor care," said another, and swung himself into a neighbouring tree. -"O stow that!" cried a third.

"Try and behave yourselves better the way you are." "Damn progress!" said the chief, who was an old physical-force tory.

But when the scientific ape got the younger males alone, he was heard with more attention.

-Man is only a promoted ape," said he, hanging his tail from a high branch.
le saske smani

"The geological record being incomplete, it is impossible to say how long he took to rise, and how long it might take us to follow in his steps.

But by plunging vigorously in medias res on a system of my own, I believe we shall astonish everyone.

Man lost centuries over religion, morals, poetry and other fudge; it was centuries before he got properly to science, and only the other day that he began to vivisect.

We shall go the other way about, and begin with vivisection.”

The doctor explained at great length what he had seen in the laboratory; and some of his hearers were delighted, but not all.

"I never heard of anything so beastly!” cried an ape who had lost one ear in quarrel with his aunt.

"Don't you see?” said the doctor.

"I will not sit and listen to such talk; or at least not in public.”

"That must be nonsense,” said the disputant; and besides it’s self-destructive. If they are only automata, they can teach us nothing of ourselves;

"and besides the public would not stand it. And men are just as good; it’s all the same genus.”

"It seems rough on the men,” said the ape with one ear.

"Well, to begin with,” said the doctor, "they say that we don’t suffer and are what they call automata; so I have a perfect right to say the same of them.”

"That must be nonsense,” said the disputant;

"and besides it’s self-destructive. If they are only automata, they can teach us nothing of ourselves;

and if they can teach us anything of ourselves, by cocoanuts! they have to suffer.”

"I am much of your way of thinking,” said the doctor, "and indeed that argument is only fit for the monthly magazines.

Say that they do suffer.

Well, they suffer in the interest of a lower race, which requires help:
le saske smani

The Scientific Ape

Robert Louis Stevenson

"-But how are we to make discoveries," inquired the disputant, 
"when we don't know what to look for?" 
"-God bless my tail!" cried the Doctor, nettled out of his dignity, 
"I believe you have the least scientific mind of any ape in the Windward Islands!" 
Know what to look for indeed! 
You just vivisect along, upon the chance; 
and if you do discover anything, who is so surprised as you?"

"I see one more objection," said the disputant, 
"though, mind you, I am far from denying it would be capital fun. But men are so strong, and then they have these guns."

"But how are we to make discoveries," inquired the disputant, 
"when we don't know what to look for?"

"I believe you have the least scientific mind of any ape in the Windward Islands!"

That same afternoon, the doctor returned to the vivisectionist's garden, purloined one of his razors through the dressing room window, and on a second trip, removed his baby from the nursery basinette.

There was a great to-do in the tree tops.

At this the whole crew began chasing and screaming; and the noise called up the chief, who was in the neighbourhood, killing fleas.

"What is all this about?"

And when they had told him, he wiped his brow.

"Give me the razor."

But at this the ape with one ear lost heart, spat at the doctor, and fled with the baby into the next tree top.

"Yah!" cried the ape with the one ear, "vivisect yourself!"

At this the whole crew began chasing and screaming; and the noise called up the chief, who was in the neighbourhood, killing fleas.

"What is all this about?"

cried the chief.

And when they had told him, he wiped his brow.

"Great cocoanuts!" cried he,

"is this a nightmare?"

Can apes descend to such barbarity?

Take back that baby where it came from."

"You have not a scientific mind,"
The Scientific Ape

Robert Louis Stevenson

se cusku le prije said the doctor.
.i lu mi na djuno lo du'u xu kau mi saske se menli -"I do not know if I have a scientific mind or not," replied the chief;
.i ku'i mi ja'a ralte lo ganra grana "but I have a very thick stick,
.i ga nai do pencu lo va cifnu gi mi gy pilno lo nu popygau lo and if you lay one claw upon that baby, I will break your head
stedu be do li'u with it."
.i ja'e bo bevri le cifnu lo crane purdi So they took the baby to the front garden plot.
.i le mivyka'a noi xamgu ke lanzu nanmu cu mutce gleki gi'e The vivisectionist (who was an estimable family man) was
gleki cfagau ci cnino skecipra bu'u le skeku'a pu lo fanmo overjoyed, and in the lightness of his heart, began three more
be lo donri experiments in his laboratory before the day was done.
fa'o The end.

This document created by Álvaro Vallejo, 2012
<table>
<thead>
<tr>
<th>Term</th>
<th>Translation/comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>le</td>
<td>the described.</td>
</tr>
<tr>
<td>saske</td>
<td>science. x1 (mass of facts) is science of/about subject matter x2 based on methodology x3.</td>
</tr>
<tr>
<td>smani</td>
<td>Monkey. x1 is a monkey/ape/simian/baboon/chimpanzee of species/breed x2.</td>
</tr>
<tr>
<td>fi'e</td>
<td>Created by. From finti = invent.</td>
</tr>
<tr>
<td>la'o</td>
<td>The non-Lojban named.</td>
</tr>
<tr>
<td>gy</td>
<td>G.</td>
</tr>
<tr>
<td>fanva</td>
<td>Translate. x1 translates text/utterance x2 to language x3 from language x4 with translation result x5.</td>
</tr>
<tr>
<td>fa</td>
<td>1st sumti place.</td>
</tr>
<tr>
<td>ni'o</td>
<td>New topic. discursive: paragraph break; introduce new topic.</td>
</tr>
<tr>
<td>bu'u</td>
<td>Coincident with.</td>
</tr>
<tr>
<td>lo sicyxindo</td>
<td>A West-Indian: lo= a</td>
</tr>
<tr>
<td>daplu</td>
<td>Island. x1 is an island/atoll/key of [material/properties] x2 in surroundings/body x3; x1 is insular.</td>
</tr>
<tr>
<td>zdani</td>
<td>House. x1 is a nest/house/lair/den/[home] of/for x2.</td>
</tr>
<tr>
<td>cu</td>
<td>sumti separator. Used here to avoid that zdani and jibni mix in a single meaning (tanru).</td>
</tr>
<tr>
<td>jibni</td>
<td>Near. x1 is near/close to/approximates x2 in property/quantity x3 (ka/ni).</td>
</tr>
<tr>
<td>lo</td>
<td>The really is. Veridical descriptor: the one(s) that really is(are) ...</td>
</tr>
<tr>
<td>ricfoi</td>
<td>Forest: ric=&gt;tricu=tree + foi=&gt;foldi=field.</td>
</tr>
<tr>
<td>i / .i</td>
<td>Sentence link/continuation; continuing sentences on same topic. May also be written with initial period.</td>
</tr>
<tr>
<td>se</td>
<td>Second sumti conversion. Swaps the first and second places of a bridi.</td>
</tr>
<tr>
<td>lo se xabju</td>
<td>A dwelling: xabju= x1 dwells/lives/resides/abides at/inhabits/is a resident of location/habitat/nest/home /abode x2.</td>
</tr>
<tr>
<td>mivyka'a</td>
<td>vivisectionist: miv=&gt;jmive=live + ka'a=&gt;katna=cut.</td>
</tr>
<tr>
<td>go'i</td>
<td>Preceding bridi; in answer to a yes/no question, repeats the claim, meaning yes.</td>
</tr>
<tr>
<td>lanzu</td>
<td>Family. x1 (mass) is a family with members including x2 bonded/tied/joined according to standard x3.</td>
</tr>
<tr>
<td>smani</td>
<td>Ape. x1 is a monkey/ape/simian/baboon/chimpanzee of species/breed x2.</td>
</tr>
<tr>
<td>remsmi smani</td>
<td>Anthropoid ape: rem=&gt;renma=human + smi=&gt;simsa=similar + smani=ape.</td>
</tr>
<tr>
<td>lo se kavbu</td>
<td>Something captured.</td>
</tr>
<tr>
<td>gi'e</td>
<td>&quot;And&quot; logical connective: bridi-tail afterthought and.</td>
</tr>
<tr>
<td>ze'a</td>
<td>during some time (medium time interval).</td>
</tr>
<tr>
<td>pinfu</td>
<td>Prisoner. x1 is a prisoner/captive of x2, restrained/held/confined by means/force x3.</td>
</tr>
<tr>
<td>selri'u</td>
<td>Restrain: se+rinju= restrained</td>
</tr>
<tr>
<td>pe</td>
<td>restrictive relative phrase marker: which is associated with ...; loosest associative/possessive.</td>
</tr>
<tr>
<td>skeku'a</td>
<td>Laboratory: ske=&gt;saske=science + ku'a=&gt;kumfa=room.</td>
</tr>
<tr>
<td>pinfu fi lo selri'u</td>
<td>Prisoner restrained in the laboratory.</td>
</tr>
<tr>
<td>pe lo skeku'a</td>
<td></td>
</tr>
<tr>
<td>mutce</td>
<td>Much. x1 is much/extreme in property x2 (ka), towards x3 extreme/direction; x1 is, in x2, very x3.</td>
</tr>
<tr>
<td>terpa</td>
<td>Fear. x1 fears x2; x1 is afraid/scared/frightened by/fearful of x2 (event/tu'a object).</td>
</tr>
<tr>
<td>mutce terpa</td>
<td>Terror.</td>
</tr>
<tr>
<td>lo se viska</td>
<td>Something seen.</td>
</tr>
<tr>
<td>sy</td>
<td>&quot;sy&quot; points to a previous word starting by &quot;s&quot;; i.e. smani.</td>
</tr>
<tr>
<td>carmi</td>
<td>Intense. x1 is intense/bright/saturated/brilliant in property (ka) x2 as received/measured by observer x3.</td>
</tr>
<tr>
<td>lo se cinri</td>
<td>Something interested.</td>
</tr>
<tr>
<td>funca</td>
<td>Luck. x1 (event/property) is determined by the luck/fortune of x2.</td>
</tr>
<tr>
<td>se zanfu'a</td>
<td>lucky. se + zan=&gt;zabna=favorable + fu'a=&gt;funca = luck.</td>
</tr>
</tbody>
</table>
le saske smani

ba After.
zi Short time.
ba zi Shortly after; ba = after + zi = shortly
lo nu The event.
zifre barkla Escape; zifre = free + barkla = exit (bar => bartu = out + kla => klama = go / come).
lo sy selri’u "sy" points to a previous word starting by "s"; i.e. smani.
lo se tcita Something with a tag.
noi Non-veridical restrictive clause used to form complicated le-like descriptions using "ke'a". Lojban distinguishes between the two kinds of relative clause by the word that introduces them: non-restrictive relative clauses start with noi.
noi se tcita Which is named/tagged.
li The number.
xruti Return. x1 (agent) returns x2 to origin/earlier state x3 from x4; x1 moves/gives x2 back to x3 from x4.
xrani Injure. x1 injures x2 in property x3 resulting in injury x4.
lo se xrani Something injured.
jamfu Foot. x1 is a/the foot [body-part] of x2; [metaphor: lowest portion] (adjective:) x1 is pedal.
(se xrani ...) fo lo injured lightly.
cmalu
po'o Uniquely.
jinvi Opine. x1 thinks/opines x2 [opinion] (du'u) is true about subject/issue x3 on grounds x4.
du'u Abstractor: predication/bridi abstractor; x1 is predication [bridi] expressed in sentence x2.
su'a I generalize.
prali Profit. x1 is a profit/gain/benefit/advantage to x2 accruing/resulting from activity/process x3.
lo se lifri Something experienced. lifri = x1 [person/passive/state] undergoes/experiences x2 (event/experience); x2 happens to x1.
ba'o Perfective. Interval event contour: in the aftermath of ...; since ...
ca During/while. Time tense relation/direction: is [selbri]; during/simultaneous with [sumti]; present tense.
lo te cmene A user of a name. cmene = x1 (quoted word(s)) is a/the name/title/tag of x2 to/used-by namer/name-user x3 (person).
vo'a It, himself. repeats 1st place of main bridi of this sentence.
te cmene vo'a He named himself.
zo Quote next word only; quotes a single Lojban word (not a cmavo compound or tanru).
prije Wise. x1 is wise/sage about matter x2 (abstraction) to observer x3.
co'a Initiative. Interval event contour: at the starting point of ...
jai Modal conversion. Convert tense/modal (tagged) place to 1st place; 1st place moves to extra FA place (fai).
fanza Annoy. x1 (event) annoys/irritates/bothers/distracts x2.
drata Other. x1 isn’t the same-thing-as/is different-from/other-than x2 by standard x3; x1 is something else.
fai Extra sumti place. Sumti place tag: tag a sumti moved out of numbered place structure; used in modal conversions.

Robert Louis Stevenson
Because of reason.

Not. bredi contradictory negator; scope is an entire bredi; logically negates in some cmavo compounds.

In favor of progress: fav=>farvi=develop + sra=>sarji=support.

x1 is old/familiar/well-known to observer x2 in feature x3 (ka) by standard x4.

Meaning. x1 is a meaning/interpretation of x2 recognized/seen/accepted by x3.

Of. Sumti link to attach sumti (default x2) to a selbri; used in descriptions.

x1 throws/launches/casts/hurls x2 to/at/in direction x3 (propulsion derives internally to x1).

Coconut: bra=>barda=big + narge=nut.

Grandmother: mam=>mamta=mother.

x1 (agent) expresses/says x2 (sedu’u/text/lu’e concept) for audience x3 via expressive medium x4.

Neither... nor...

Something interested.

Hang. x1 hangs/dangles/is suspended from x2 by/at/with joint x3.

Go. x1 comes/goes to destination x2 from origin x3 via route x4 using means/vehicle x5.

Tree. x1 is a tree of species/cultivar x2.

Ordinal marker. Convert number to ordinal selbri; x1 is (n)th member of set x2 ordered by rule x3.

Cry out. x1 cries out/yells/howls sound x2; x1 is a crier

Cessative. Interval event contour: at the ending point of ... even if not done. There are two points of time that can be usefully associated with an event: the beginning, marked by “co’a”, and the end, marked by “co’u”. “co’u” marks the boundary between the “ca’o” (during) and “ba’o” (in the aftermath of): mi pu co’u citka le mi sanmi I [past] [cessitive] eat my meal. I ceased eating my meal.

Unspecified bredi. elliptical/unspecified bredi relationship. co’e is the zo’e (for unspecified sumti) equivalent for selbri. co’e can appear where any selbri can appear, but it leaves the relationship between its sumti unspecified. So mi co’e le barja means something like “I thingummy the bar”: the bar and I are in some relationship, but I’m not bothering to say what it is.

Damn it!. x1 is a derogative connotation/sense of x2 used by x3; x3 derogates/’ curses at’ x2 in form x1.

Develop. x1 develops/evolves towards/into x2 from x3 through stages x4.

Principal. x1 is principal/chief/leader/main/[staple], most significant among x2 (set) in property x3 (ka).

Old: to’e=<(opposite) + citno= young.

Conservative: sto=>stodi=constant + nei=>nelci=fond.

Approve. x1 approves of/gives favor to plan/action x2 (object/event).

Body. x1 is a/the body/corpus/corpse of x2; (adjective:) x1 is corporal/corporeal.

Strong. x1 is strong/powerful/[tough] in property/quality x2 (ka) by standard x3.

Suggestion.

To improve: xag=>xamgu (benefical) + ze’a=zenba=increase.

Behave. x1 behaves/conducts oneself as/in-manner x2 (event/property) under conditions x3.

To gather: jaj=>jmaji=collect + gau=gasnu=do.

Several.

Younger: cit=>citno=young + mau=>zmadu=more.

Apart. x1 is apart/separate from x2, separated by partition/wall/gap/interval/separating medium x3.

Local. x1 is local to x2; x1 is confined to locus x2 within range x3.

Alone.

Attentive. x1 is attentive towards/attends/tends/pays attention to object/affair x2.
More. x1 exceeds/is more than x2 in property/quantity x3 (ka/ni) by amount/excess x4.

Hear. x1 hears x2 against background/noise x3; x2 is audible; (adjective:) x1 is aural.

Something heard.

Simply speaking. Discursive: simply - elaborating.

High. x1 is high/up/upward in frame of reference x2 as compared with baseline/standard height x3.

Branch. x1 is a branch/bough/limb of x2; x2 forks into branches x1; [preferred over metaphorical birka].

Tail. x1 is a/the tail/appendix [body-part] of x2; [metaphor: trailing, following portion/appendage].

Geology: ted=>terdi=earth + ske=>saske=science.

Record. x1 is a record of x2 (data/facts/du’u) about x3 (object/event) preserved in medium x4.

Complete. x1 (event) is complete/done/finished; x1 (object) has become whole in property x2 by standard x3.

Therefore result. jalge modal, 1st place resultingly.

End linked sumti in specified description.

We with you. me/we the speaker(s)/author(s) & you the listener(s) & others unspecified.

Precede. x1 precedes/leads x2 in sequence x3; x1 is former/preceding/previous; x2 is latter/following.

Restrictive relative clause; attaches subordinate bridi with identifying information to a sumti.

I opine.

Under conditions.

Powerful. x1 has the power to bring about x2 under conditions x3; x1 is powerful in aspect x2 under x3.

User. x1 uses/employs x2 [tool, apparatus, machine, agent, acting entity, material] for purpose x3.

System. x1 (mass) system interrelated by structure x2 among components x3 (set) displaying x4 (ka).

Invent. x1 invents/creates/composes/authors x2 for function/purpose x3 from existing elements/ideas x4.

Surprise. x1 (event/action abstract) surprises/startles/is unexpected [and generally sudden] to x2.

Logically quantified existential pro-sumti: there exists something 1 (usually restricted)

everybody.

Use up. x1 (event) uses up/depletes/consumes/[wastes] x2 [resource].

Century: cto=>xecto=hundred + na’a=>nanca=year.

Many.

By method. tadji modal, 1st place (in manner 3) methodically.

Religion. x1 is a religion of believers including x2 sharing common beliefs/practices/tenets including x3.

In common with. non-logical connective: along with (unmixed).

Poem. x1 is a poem/verse about plot/theme/subject/pattern x2 by author x3 for intended audience x4.

Useless. nal=>na’e= non + sa’u=>sarcu= necessary.

Correct. x1 is correct/proper/right/perfect in property/aspect x2 (ka) in situation x3 by standard x4.

Act. x1 is a volitional entity employing means/taking action x2 for purpose/goal x3/to end x3.

Science. x1 (mass of facts) is science of/about subject matter x2 based on methodology x3.
Recently, pu = before; zi = time tense distance: instantaneous-to-short distance in time.

Strong emotion.

Reverse. x1 [sequence] is in reverse order from x2 [sequence]; x1 (object) is inverted from x2 (object).

Travel. x1 travels/journeys/goes/moves via route x2 using means/vehicle x3; x1 is a traveller.

Respect (Attitudinal).

Holy. x1 is holy/sacred to person/people/culture/religion /cult/group x2.

Textual confusion. Attitudinal question: confusion about something said.

x1 (quoted text) is a question/query about subject x2 by questioner x3 to audience x4.

x1 is a detail/feature/particular of x2.

x1 (person) explains x2 (event/state/property) to x3 with explanation x4 (du'u).

See. x1 sees/views/perceives visually x2 under conditions x3.

Logical connective: tanru-internal afterthought and.

x1 feels wonder/awe/marvels about x2.

Converts number to an objectively quantified tense interval modifier; defaults to time tense.

In form. tamsmi modal, 1st place (like)/(in manner 2) resembling ...; sharing ideal form ... (x1 resembles x2 sharing ideal form/shape x3 in property x4).

Cruel. x1 (person) is cruel/mean/unkind to victim x2.

Lose. x1 loses person/thing x2 at/near x3; x1 loses property/feature x2 in conditions/situation x3.

Ear. x1 is a/the ear [body-part] of x2; [metaphor: sensory apparatus, information gathering].

Fight. x1 fights/combats/struggles with x2 over issue x3 (abstract); x1 is a fighter/combatant.

x1 is an aunt/uncle of x2 by bond/tie x3; x1 is an associated member of x2's parent's generation.

x1 is conscious/aware of x2 (object/abstract); x1 discerns/recognizes x2 (object/abstract).

Start discursive (metalinguistic) bridi.

x1 discovers/finds out x2 (du'u) about subject/object x3; x1 finds (fi) x3 (object).

x1 is material/stuff/matter of type/composition including x2 in shape/form x3.

A shape of matter.

Discursive: marks word serving as focus of indirect question: "I know WHO went to the store"

x1 says that the value of the word it attaches to is known — whatever that word might be.

Generously - parsimoniously

Attached to cmavo to negate them; various negation-related meanings.

Public. x1 is public/un-hidden/open/jointly available to/owned by all among community x2 (mass).

Attitudinal: attitudinal question; how do you feel about it? with what intensity?

Criminal act. zer=>zekri=crime + zu'e=>zukte=act.

x1 argues for stand x2 against stand x3; [an opponent is not necessary].

x1 is fond of/likes/has a taste for x2 (object/state).

Doubt. x1 doubts/is dubious/doubtful/skeptical/questions that x2 (du'u) is true.
zasti  Exist. x1 exists/is real/actual/reality for x2 under metaphysics x3.

vrude  Virtuous. x1 is virtuous/saintly/[fine/moral/nice/holy/morally good] by standard x2.

palci  Evil. x1 is evil/depraved/wicked [morally bad] by standard x2.

zekri  Crime. x1 (event/state) is a punishable crime/[taboo/sin] to people/culture/judges/jury x2.

spuda  Reply. x1 answers/replies to/responds to person/object/event/situation/stimulus x2 with response x3.

ji'a  In addition: discursive: additionally.

ru'a  I postulate.

cecmu  Community. x1 is a community/colony of organisms x2.

remna  Human. x1 is a human/human being/man (non-specific gender-free sense); (adjective:) x1 is human.

mapti  Fit. x1 fits/matches/suits/is compatible/appropriate /corresponds to/with x2 in property/aspect x3

mintu  Same. x1 is the same/identical thing as x2 by standard x3; (x1 and x2 interchangeable).

klesi  Class. x1 (mass/si'o) is a class/category/subgroup/subset within x2 with defining property x3 (ka).

simlu  Seem. x1 seems/appears to have property(ies) x2 to observer x3 under conditions x4.

ka  ~ness. abstractor: property/quality abstractor; x1 is quality/property exhibited by [bridi].

mai  Sentence ordinal. Utterance ordinal suffix; converts a number to an ordinal, such as an item or paragraph number.

xusra  Assert. x1 (agent) asserts/claims/declares x2 (du'u) is true [can be used for epistemology of authority].

cortu  Pain. x1 hurts/feels pain/hurt at locus x2

zmidi  Automata. zmi=>zmiku=automatic + dai=>dacti = object.

bo  Short scope joiner; joins various constructs with shortest scope and right grouping.

prane  Perfect. x1 is perfect/ideal/archetypical/faultless/flawless/un-improvable in property/aspect x2 (ka).

zifre  Free. x1 is free/at liberty to do/be x2 (event/state) under conditions x3.

iseki'ubo  So. For that reason.

la'e  The referent of (indirect pointer); uses the referent of a sumti as the desired sumti.

di'u  The last utterance (pro-sumti).

la'edi'u  Last utterance it. pro-sumti: the referent of the last utterance; the state.

cizra  Strange. x1 is strange/weird/deviant/bizarre/odd to x2 in property x3 (ka).

du'ospo  Self-destructive: du'o=>du=same identity as + spo=>daspo=destroy.

ganai  Fore only if. Logical connective: forethought all but tanru-internal conditional/only if (with gi).

gi  Connective medial. Logical connective: all but tanru-internal forethought connective medial marker.

no  Zero. None.

no da / noda  Nothing at all.

su'o  At least. digit/number: some; no less than.

to... toi  Parenthesis. (...).


ja'a  Bridi affirmer. Bridi logical affirmer; scope is an entire bridí.

ie / .ie  Agreement. Attitudinal: agreement - disagreement.

je'u  Truth. Discursive: truth - falsity.

masti  Month. x1 is x2 months in duration (default is 1 month) by month standard x3.

karni  Journal. x1 is a journal/periodical/magazine/[newspaper] with content x2 published by x3 for audience x4.

va'u  Benefiting from. xamgu modal, 1st place beneficiary case tag complement benefiting from ...

se va'u/seva'u  With beneficiary.

mleca  x1 is less than x2 in property/quantity x3 (ka/ni) by amount x4.
Help. x1 helps/assists/aids object/person x2 do/achieve/maintain event/activity x3.

This.

Document: ter=> third conversion (points to the x3 of tcidu) + tcidu = x1 [agent] reads x2 [text] from surface/document/reading material x3.

Created by. finti modal, 1st place (creator) created by ...

Dated. detri modal, 1st place (for letters) dated ... ; attaches date stamp.