

## Substitution Cipher

As I collect the data I gather that the frequency of a is 1, b is 1, c is 1, d is 1 - this does not show a good representation of the frequency data.

I see that ~~x~~ is occurring <sup>lowercase</sup> by itself many times. I deduce that the Gibberish letter ~~x~~ is the English letter a.

I observe that the Gibberish letters a, e, o occur only once and the letter s does not show up at all.  $\Rightarrow$  a, e, o, s are the Gibberish of q, z, j, x. The letter Z shows up by itself as a capital.  $\Rightarrow$  Z is the Gibberish of o/i.

There are Gibberish words called zw, zh ie of, on, or / initials. There are also words called ending z and no words can end in z... z is o. The word xwc occurs a lot. As ~~x~~ is <sup>Gibberish</sup> English a I risk the guess that xwc is the gibberish of and  $\Rightarrow$  w is n, c is d.

The word vff starts most sentences. I guess that vff is the... v is t, f is h, ~~ff~~ j is e.

There is an English word -n. Possibilities are on, an, in. It can't be on because ~~x~~ is a, can't be an because z is o... It must be in  $\Rightarrow$  g is i.

There is a word a-- which ends in a double letter. Possibilities are all, ass, add. There is another word & ti-- which ends in the same double letter as before. Possibilities are tiff, till. The ending letter in common is d... y is the gibberish of l.

The 1<sup>st</sup> word is The. The 2<sup>nd</sup> is -de. Now this ~~de~~ is a capital. There is another word that starts with the same letter as the 2<sup>nd</sup> word -o rin-. I am going to risk the last letter as gg. As far as I know the only word with this format is morning  $\Rightarrow$  the 2<sup>nd</sup> word is Mde... u is the Gibberish of m.

Till now I can read the words-

~~The, Mde,~~ The, Mde, had, hard, all, morning, little, home, then on, and, a, & till, he, in, arms.

Consider the phrase hi\_ little home. There are many possibilities but the only one that makes sense is ~~his little~~ his little home.  $\therefore q \rightarrow s$ .

In \_ een \_ is b.  $\Rightarrow p \rightarrow b$

In o \_ ; \_ is new so \_ must be f.  $\Rightarrow$  ~~h~~  $h \rightarrow f$ .

In \_ hite \_ ash each blank is the same so blank is w  $\Rightarrow n \rightarrow w$

In wor \_ ing \_ has to be ~~k~~  $k \Rightarrow r \rightarrow k$

In o \_ er \_ has to be v  $\Rightarrow t \rightarrow v$

In ver \_ \_ has to be y  $\Rightarrow l \rightarrow y$

In \_ hairs \_ has to be c  $\Rightarrow d \rightarrow c$

In d \_ sters \_ has to be u  $\Rightarrow m \rightarrow u$

In \_ ail \_ has to be p  $\Rightarrow b \rightarrow p$

In e \_ tract \_ has to be x  $\Rightarrow a \rightarrow x$

In \_ umping \_ has to be j  $\Rightarrow$  ~~e~~  $e \rightarrow j$

In bree \_ es \_ has to be z  $\Rightarrow o \rightarrow z$

By elimination I realise that s is the gibberish of q.

The translation of each letter in Gibberish to English is:

Gibberish	English	Gibberish	English
v	t	r	k
f	h	t	v
j	e	l	y
u	m	h	f
z	o	n	a
w	a	a	x
x	n	e	j
c	d	o	z
y	l	s	q $\rightarrow$ from elimination
p	b		
k	r		
q	s		
g	i		
i	g		
d	c		
b	p		
n	w		