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Method · February 2021

DOI: 10.13140/RG.2.2.11445.19687

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Sample Size Determination Using Krejcie and Morgan Table

Dear Researcher,

If your thesis examiner doesn't like online sample size calculators such as raosoft.com etc. You can use [Bukhari Sample Size Calculator](#) (Bukhari, 2020) which is an MS Excel based calculator working on formula proposed by Daniel (1999). But in this short post I want to draw your attention to another method of sample size determination and it is old. Yes, you guessed it right! It is Krejcie & Morgan (1970) table of sample size determination.

I am attaching the whole table to this document for your ease, also you will get all the authentic details in reference section.

Krejcie and Morgan Table

The ever-increasing need for a representative statistical sample in empirical research has created the demand for an effective method of determining sample size. To address the existing gap, Krejcie & Morgan (1970) came up with a table for determining sample size for a given population for easy reference (see Table 1).

The Table is constructed using the following formula for determining sample size.

Formula for determining sample size

$$s = X^2 NP(1 - P) + d^2 (N - 1) + X^2 P(1 - P)$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

Source: Krejcie & Morgan, 1970

But there is no need of using the formula since the table of determining sample size has all the provisions you require to arrive at your sample size.

Table 1: Krejcie and Morgan Table

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Conclusion

I hope this short post help you find your sample size for your population. If you need any further guidelines regarding your graduate thesis, feel free to [download](#) my handbook “A Graduate's Handbook for Writing High-Quality Thesis” (Bukhari, 2020b).

Syed Abdul Rehman Bukhari, 8th February, 2021. All rights are reserved by [Research Gate](#).

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