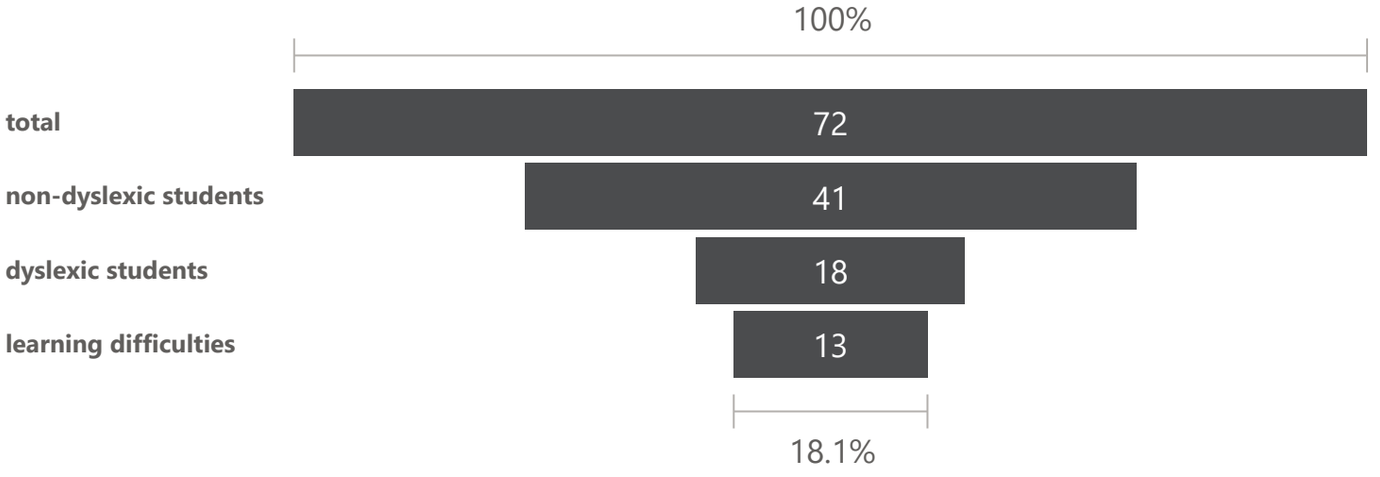
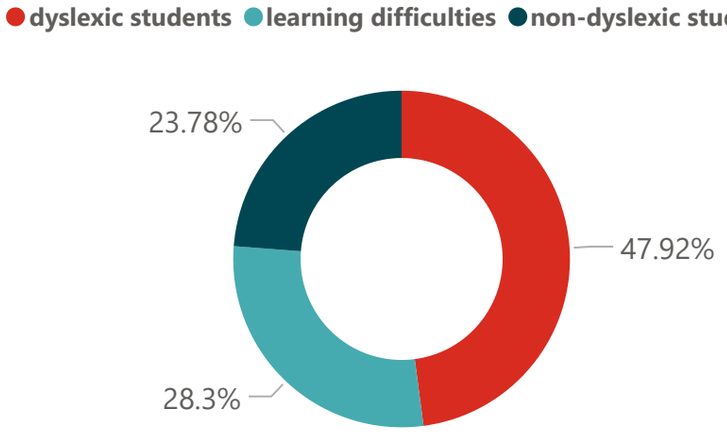
Effects of the design of written music on the readability for children with dyslexia paper

paper sample size by group



mean number of mistakes by group



sample main stats.

group	mean age	girls %	boys %	plays music	takes music lessons	can read music	difficulties reading music	difficulties reading/writing
dyslexic students	10.40	16.7%	83.3%	55.6%	7%	44.4%	71.4%	83.3%
learning difficulties	9.80	53.8%	46.2%	53.8%	6%	53.8%	50.0%	69.2%
non-dyslexic students	10.00	61.0%	39.0%	41.5%	25%	48.8%	40.0%	0.0%

Summary:

1- sample consisted of 3 main categories, dyslexic, non-dyslexic, and learning difficulties students. only 43% are with reading difficulties
2- sample was of 2 genders aged around 10 years old.
3- different features were collected about each sample group as shown in the table above.
4- whole samples was subjected to music notes focused test and high deviation was noticed between sample groups.
5- students with reading difficulties got two thirds of the mean number of mistakes made by all students.

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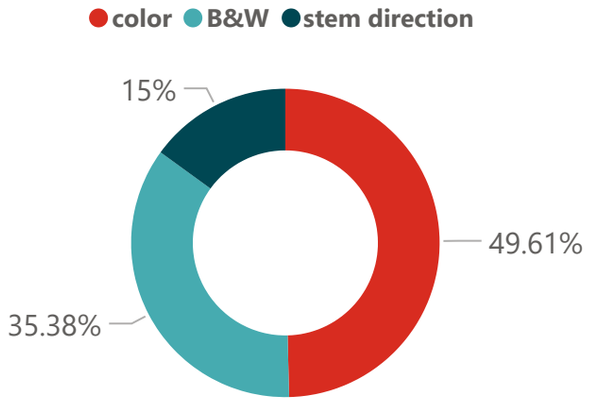
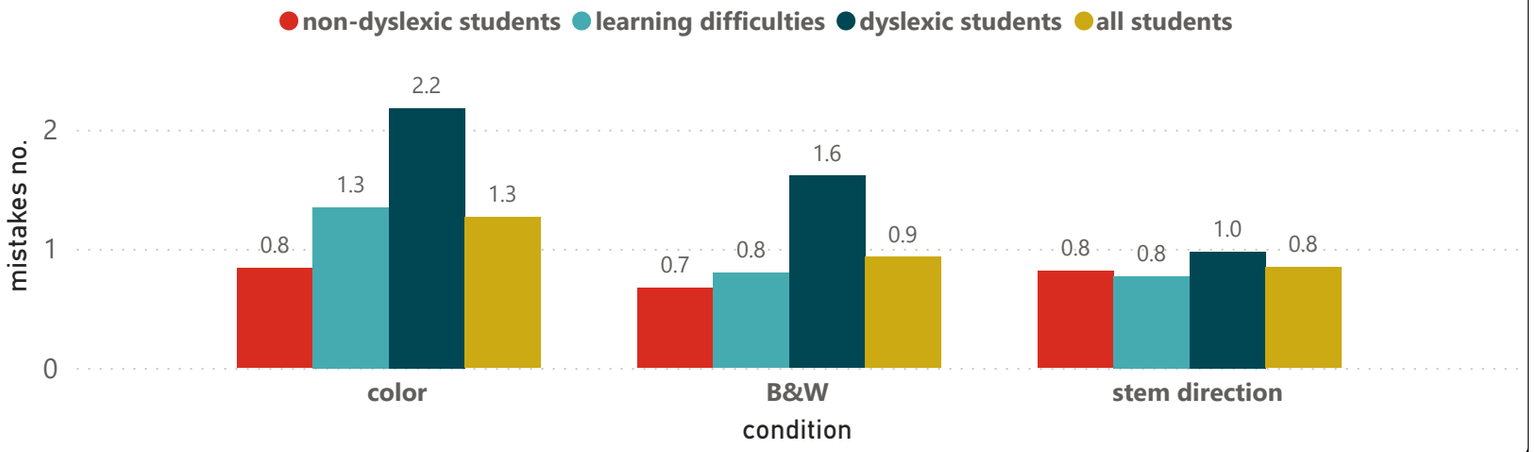
Sample Stats | Test Variants | Students Preferences

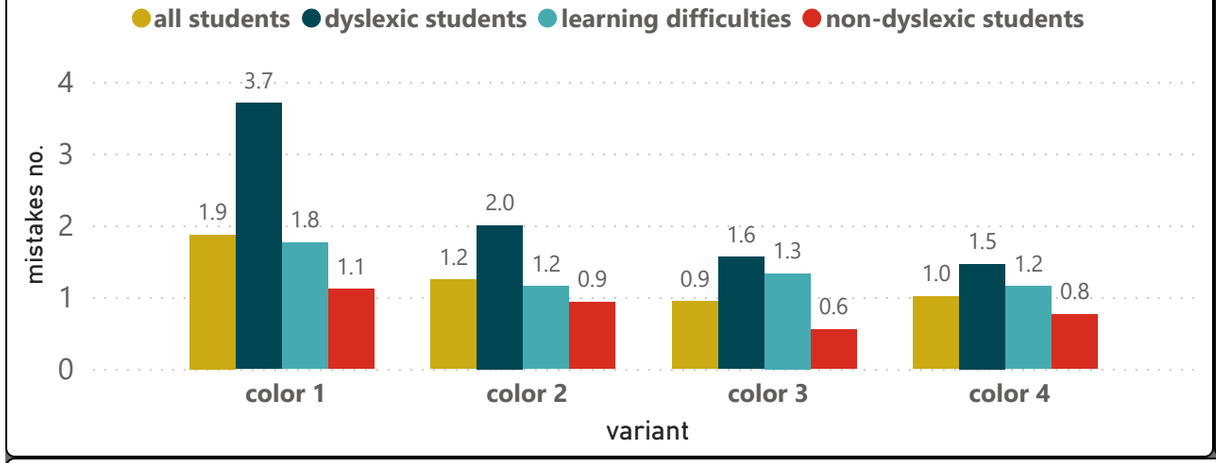
mistakes by condition



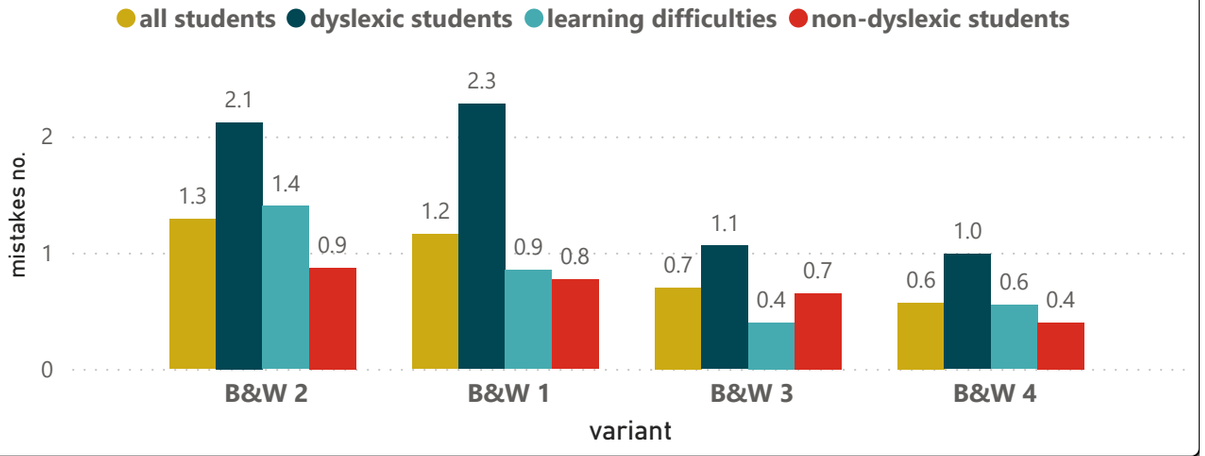
mistakes by group and condition



mistakes by group in color variants



mistakes by group in B&W variants



Summary:

1- tests were made using gradient of 3 conditions, each had it's number of variants

2- music notes in different colors and shades of B&W is proved to deeply affect students' mistakes, specially dyslexic ones.

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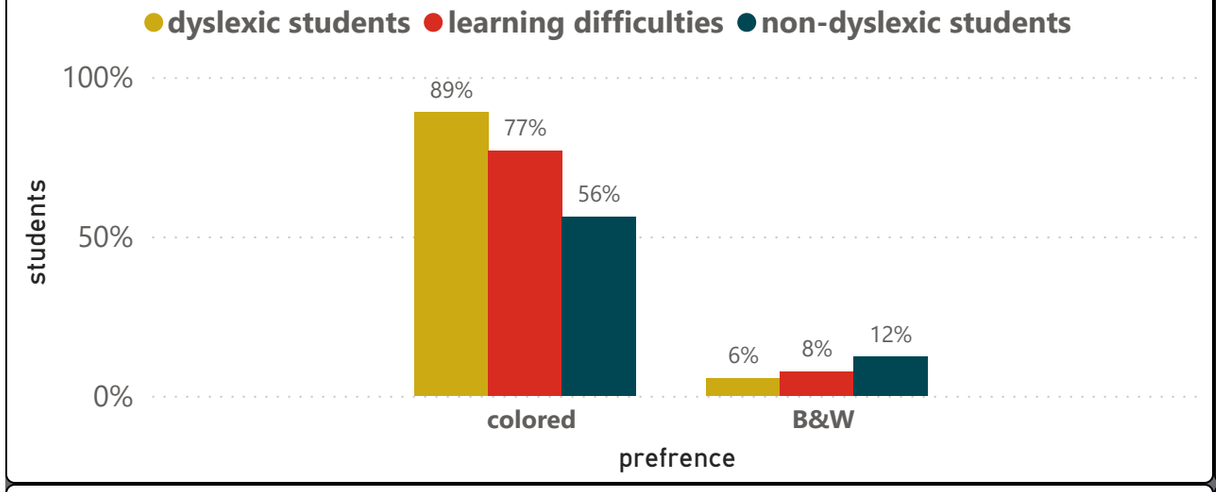
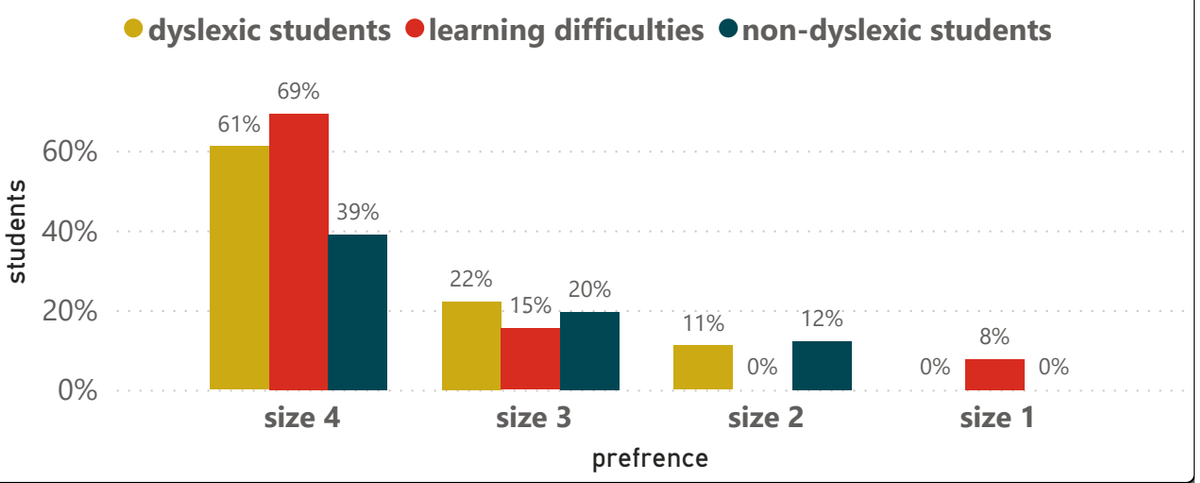
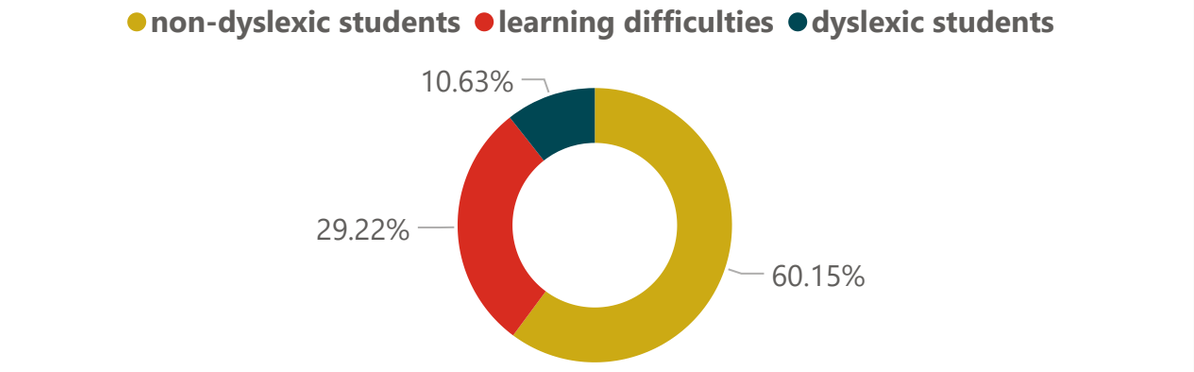
sample groups by color preference



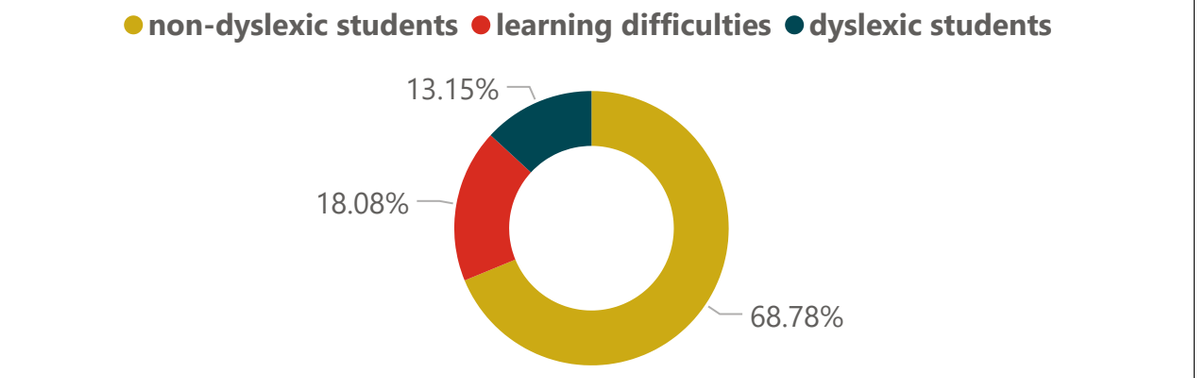
sample group by size preference



students with no color preference



students with no size preference



Summary:

1- student preferences were collected based on 2 factors, notes colors and size.

2- all sample groups strongly preferred bigger size colored music notes regardless of having reading issues.