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|  | black & white map | infographics map |
| **Communication access** | | |
| *Cartographic representation methods* | Uniformly sized circle sym­bols with 4 quadrants to indicate percentage of households with access to four types of communication, plus surrounding ring diagram for absolute household values | Four proportional staggered circle symbols with pictograms that represent the four types of communication |
| *Note / Attention drawing* | Adding absolute values to relative values; A map to read / | / Separate maps per province (to avoid an inset map); The title is already an interpretation. |
| *Comparison: best for* | Showing deviations from full coverage / access | Reveals similarities and differences (but no relation to impacted population) |
| **Highest education level** | | |
| *Cartographic representation methods* | 3D wing symbols with wings proportional to the population (one wing for each of the four education levels) | A choropleth map per variable based on a single classification |
| *Note / Attention drawing* | Volume-proportional symbols; Comment on data incompleteness in legend / | / Maps arranged within a ladder; Sketch of a gradu­ate student with summary statistics |
| *Comparison: best for* | Linking absolute and relative figures (differences not as pronounced due to volumetric symbols) | Mutual explaining of the pattern; Easy to memorize |
| **Languages** | | |
| *Cartographic representation methods* | 12 choropleth maps (11 official languages plus Other) arranged as small multiples | Coin charts, coloured to indicate values and portions of three languages originating from Limpopo province |
| *Note / Attention drawing* | Common legend to allow direct comparison / | No true visual proportionality, but values can be summed up (although rounded). / Emphasis on Limpopo province; Use of space around map face (text wraps around map) |
| *Comparison: best for* | Different distribution patterns for all 12 variables; indirectly revealing the origins of certain languages by very dark shades | Specific focus of map (story telling): explains the spread of languages originating from Limpopo province |
| **Water source** | | |
| *Cartographic representation methods* | Proportional ring symbols (% households) with four sections; Centre of ring shaded according to access of the regional water scheme and four sections according to access of other water sources | Choropleth layer for percentage of regional water scheme use; Proportional circle symbols for use of non-regional water sources sectioned to show ratio among types |
| *Note / Attention drawing* | A title pointing to the problem / One complex symbol per enumeration unit (compared with space required for explanations in legend) | A title with a message / Use of water droplets as map symbols that create rings when touching the water; Colour intensity associated with water depth; A dripping tap and a water wave as part of legend |
| *Comparison: best for* | Memorizing the spatial pattern (despite symbols being complex, they are concise) | A true infographics: title in combination with colours, map symbols, and legend elements directly reflects the topic. |
| **Population groups** | | |
| *Cartographic representation methods* | Choropleth layer for percentage of Black population; Segmented proportional bar symbols for three minority groups plus Other | Coin chart (person symbol), coloured to indicate values and portions of different population groups |
| *Note / Attention drawing* | Although maximum bar size is not shown in legend, symbol sizes can be inferred from the symbol scale. / Long bars (not best for revealing spatial pattern); Inverse of figure – ground (difficult) | Statistics for entire area help to get an overview of proportions per municipality / South African flag part of the legend; Repeated use of person symbol; Additional visualizing of summary statistics by same method |
| *Comparison: best for* | Allows comparison of distribution within the Non-Black population (minority groups). | Provides a non-biased and full picture of the distribution for major population groups. |
| **Cooking fuel** | | |
| *Cartographic representation methods* | Alternate band map method distinguishes between four plus Other types of cooking fuel. | Four volume-proportional cylindrical symbols (number of households per type of cooking fuel), stacked according to size |
| *Note / Attention drawing* | Only relative values; Smaller proportions require contrasting colours (here also patterns); Highlights the exception of coal / Map pattern wants to be explored. | Colouring explains location of inset map / Intriguing 3D map symbols |
| *Comparison: best for* | Showing proportions; Easy reading/interpretation | Differences in household numbers striking, their relation to type of cooking fuel easy to memorize |
| **Refuse removal** | | |
| *Cartographic representation methods* | Choropleth layer for percentage of households with refuse removal service; complex diagrams consisting of three proportional symbols indicating use of refuse dumps, other disposal methods, or no disposal method | Choropleth layer for population density plus use of “Chernoff faces” concept (waste bin symbols in this case) for depicting the four variables (see b&w map) |
| *Note / Attention drawing* | Highlights combination of differently scaled area-proportional bars and squares by adding symbol scale in bold for squares / Portrait layout | Pointing to non-proportionality in symbol scaling via symbol placement in legend under auxiliary lines / Cartographic representation method used |
| *Comparison: best for* | Difficult to interpret, solution not optimal; Caution: direct visual comparison of refuse disposal methods per municipality not possible | Similarities regarding refuse disposal among the municipalities revealed when looking at the overall symbol (visual grouping, i.e. mimetic) |