

Appendix 2. Evaluation of the combined application of static and dynamic visual variables, sound variables and related methods of presentation for users of different age groups

Number of static visual variables		Number of static and dynamic variables	Dynamized variables	Entities and levels	Combinations of variables	Methods of presentation	Age groups
dynamized variables	other variables						
1	4	10	1 2 3 4	ab	1 (I, II, III, IV, V, VII) 2 3 4; ④⑥⑧⑩	Sab, Kab, Kdab	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	ac	1 (I, II, III, IV, V, VII) 2 3 4; ④⑥⑧⑩	Kc, Sac, Kac (cs), Kdac (cs)	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	βb	1 (I, II, III, IV, V, VII) 2 3 4; ④⑥⑧⑩	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	βc	1 (I, II, III, IV, V, VII) 2 3 4; ④⑥⑧⑩	Ic, Sβc, Kβc (cs), Kdβc (cs)	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	γb	1 (I, II, III, IV, V, VII) 2 3 4; ④⑥⑧⑩	Kγc(cs), KaBc, KDγb	{2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	γc	1 (I, II, III, IV, V, VII) 2 3 4; ④⑥⑧⑩	KaBc, Kγc(cs), KDγC(cs)	{2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	aa	1 2 (I, II, III, IV, V, VII) 3 4; ⑦⑥⑧⑩	Sac	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	γa	1 2 (I, II, III, IV, V, VII) 3 4; ⑦⑥⑧⑩	MCa, MZa	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	ab	1 2 3 (I, II, III, IV, V, VII) 4; ②③⑥⑧⑩	Sab, Kab, Kdab	{2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	ac	1 2 3 (I, II, III, IV, V, VII) 4; ②③⑥⑧⑩	Kc, Sac, Kac (cs), Kdac (cs)	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	βb	1 2 3 (I, II, III, IV, V, VII) 4; ②③⑥⑧⑩	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	βc	1 2 3 (I, II, III, IV, V, VII) 4; ②③⑥⑧⑩	Ic, Sβc, Kβc (cs), Kdβc (cs)	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	γb	1 2 3 (I, II, III, IV, V, VII) 4; ②③⑥⑧⑩	Kγc(cs), KaBc, KDγb	{2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	γc	1 2 3 (I, II, III, IV, V, VII) 4; ②③⑥⑧⑩	KaBc, Kγ c(cs), KDγC(cs)	{2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	aa	1 2 3 4 (I, II, III, IV, V, VII); ⑤⑥⑧⑩	Sac	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	βa	1 2 3 4 (I, II, III, IV, V, VII); ⑤⑥⑧⑩	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
1	4	10	1 2 3 4	γa	1 2 3 4 (I, II, III, IV, V, VII); ⑤⑥⑧⑩	MCA, MZa	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 5	βa	1 2 3 4 5 (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 5	βb	1 2 3 4 5 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 5	γa	1 2 3 4 5 (I, II, III, IV, V, VII)	MCa, MZa	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 7	aa	1 2 3 4 7 (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 7	ab	1 2 3 4 7 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 7	βa	1 2 3 4 7 (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 7	βb	1 2 3 4 7 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 8	aa	1 2 3 4 8 (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 8	ab	1 2 3 4 8 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 8	βa	1 2 3 4 8 (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 8	βb	1 2 3 4 8 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 9	aa	1 2 3 4 9 (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 9	ab	1 2 3 4 9 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1} {2} {3} {4} {5} {6} {7}
1	5	11	1 2 3 4 9	ac	1 2 3 4 9 (I, II, III, IV, V, VII)	Kc, Sac, Kac (cs), Kdac (cs)	{1} {2} {3} {4} {5} {6} {7}
2	5	16	1 2 3 4	ab	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑥⑧⑩	Sab, Kab, Kdab	{1} {2} {3} {4} {5} {6} {7}
2	5	16	1 2 3 4	βb	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑥⑧⑩	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
2	5	16	1 2 3 4	βc	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑥⑧⑩	Sβc, Kβc (cs), KDBC (CS)	{1} {2} {3} {4} {5} {6} {7}
2	5	16	1 2 3 4	γb	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑥⑧⑩	Kγc(cs), KaBc, KDγb	{2} {3} {4} {5} {6} {7}

Number of static visual variables		Number of static and dynamic variables	Dynamized variables	Entities and levels	Combinations of variables	Methods of presentation	Age groups
dynamized variables	other variables						
2	5	16	<u>1 2 3 4</u>	γc	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑤⑦⑨	KαBc, KγC(cs), KDγC(cs)	{2}{3}{4}{5}{6}{7}
2	5	16	<u>1 2 3 4</u>	αa	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑤⑦⑨	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	16	<u>1 2 3 4</u>	γa	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) 4; ④⑥⑧⑩ ②③⑤⑦⑨	MCa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 5</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 5</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	αb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 7</u> (I, II, III, IV, V, VII)	Sαb, Kab, Kdab	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 7</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	αb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 8</u> (I, II, III, IV, V, VII)	Sαb, Kab, Kdab	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 9</u>	αa	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 9</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 9</u>	αc	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 9</u> (I, II, III, IV, V, VII)	Kc, Sac, Kac (cs), Kdac (cs)	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 5</u>	γa	<u>1 2</u> (I, II, III, IV, V, VII) <u>3 4 5</u> (I, II, III, IV, V, VII)	MCA, MZa	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	αa	<u>1 2</u> (I, II, III, IV, V, VII) <u>3 4 7</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	αa	<u>1 2</u> (I, II, III, IV, V, VII) <u>3 4 8</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 9</u>	αa	<u>1 2</u> (I, II, III, IV, V, VII) <u>3 4 9</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 5</u>	βb	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 5</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	αb	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 7</u> (I, II, III, IV, V, VII)	Sαb, Kab, Kdab	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	βb	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 7</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	αa	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 8</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	αb	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 8</u> (I, II, III, IV, V, VII)	Sαb, Kab, Kdab	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	βb	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 9</u>	αa	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 9</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 9</u>	αc	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 9</u> (I, II, III, IV, V, VII)	Kc, Sac, Kac (cs), Kdac (cs)	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 5</u>	βa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>5</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 5</u>	γa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>5</u> (I, II, III, IV, V, VII)	MCa,	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	αa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 7</u>	βa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	αa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 8</u>	βa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	5	17	<u>1 2 3 4 9</u>	αa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>9</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 5 7</u>	βa	<u>1 2 3 4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 5 7</u>	βb	<u>1 2 3 4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 5 8</u>	βa	<u>1 2 3 4 5</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 5 8</u>	βb	<u>1 2 3 4 5</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 7 8</u>	αa	<u>1 2 3 4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sac	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 7 8</u>	βa	<u>1 2 3 4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 7 8</u>	βb	<u>1 2 3 4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1}{2}{3}{4}{5}{6}{7}
2	6	18	<u>1 2 3 4 7 9</u>	αb	<u>1 2 3 4 7</u> (I, II, III, IV, V, VII) <u>9</u> (I, II, III, IV, V, VII)	Sαb, Kab, Kdab	{1}{2}{3}{4}{5}{6}{7}

Number of static visual variables		Number of static and dynamic variables	Dynamized variables	Entities and levels	Combinations of variables	Methods of presentation	Age groups
dynamized variables	other variables						
2	6	18	1 2 3 4 8 9	aa	1 2 3 4 8 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
2	6	18	1 2 3 4 8 9	ab	1 2 3 4 8 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1 2 3 4 5 6 7}
3	4	22	1 2 3 4	βc	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 (I, II, III, IV, V, VII); ④⑤⑥⑦ ②③⑥⑧⑨ ⑤⑥⑧⑨	Ic, Sβc, Kβc (cs), Kdβc (cs)	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 5	βb	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 5 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 7	βb	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 7 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 8	ab	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 8 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 8	βb	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 8 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 9	ab	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 9 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 9	ac	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 9 (I, II, III, IV, V, VII)	Kc, Sac, Kac (cs), Kdac (cs)	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 9	ab	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 9 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 9	ac	1 (I, II, III, IV, V, VII) 2 3 (I, II, III, IV, V, VII) 4 9 (I, II, III, IV, V, VII)	Kc, Sac, Kac (cs), Kdac (cs)	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 5	β	1 (I, II, III, IV, V, VII) 2 3 4 (I, II, III, IV, V, VII) 5 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 7	βb	1 (I, II, III, IV, V, VII) 2 3 4 (I, II, III, IV, V, VII) 7 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 5	γa	1 2 (I, II, III, IV, V, VII) 3 4 (I, II, III, IV, V, VII) 5 (I, II, III, IV, V, VII)	MCa, MZa	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 7	aa	1 2 (I, II, III, IV, V, VII) 3 4 (I, II, III, IV, V, VII) 7 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 8	aa	1 2 (I, II, III, IV, V, VII) 3 4 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	5	23	1 2 3 4 9	aa	1 2 (I, II, III, IV, V, VII) 3 4 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 8	βb	1 (I, II, III, IV, V, VII) 2 3 4 5 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 8	aa	1 (I, II, III, IV, V, VII) 2 3 4 5 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 8	βa	1 (I, II, III, IV, V, VII) 2 3 4 5 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sβa, MZa	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 8	βb	1 2 3 (I, II, III, IV, V, VII) 4 5 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 8	βa	1 2 3 4 (I, II, III, IV, V, VII) 5 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	SβA, MZa	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 7	βb	1 (I, II, III, IV, V, VII) 2 3 4 5 (I, II, III, IV, V, VII) 7 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 7	βa	1 2 (I, II, III, IV, V, VII) 3 4 5 (I, II, III, IV, V, VII) 7 (I, II, III, IV, V, VII)	SβA, MZa	{1 2 3 4 5 6 7}
3	6	4	1 2 3 4 5 7	βb	1 2 3 (I, II, III, IV, V, VII) 4 5 (I, II, III, IV, V, VII) 7 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 5 7	βa	1 2 3 4 (I, II, III, IV, V, VII) 5 (I, II, III, IV, V, VII) 7 (I, II, III, IV, V, VII)	Sβa, MZa	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 8	ab	1 (I, II, III, IV, V, VII) 2 3 4 7 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 8	βb	1 (I, II, III, IV, V, VII) 2 3 4 7 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 9	ab	1 (I, II, III, IV, V, VII) 2 3 4 7 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 8	aa	1 2 (I, II, III, IV, V, VII) 3 4 7 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 8	βa	1 2 (I, II, III, IV, V, VII) 3 4 7 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sβa, MZa	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 9	aa	1 2 (I, II, III, IV, V, VII) 3 4 7 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 8	ab	1 2 3 (I, II, III, IV, V, VII) 4 7 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 8	βb	1 2 3 (I, II, III, IV, V, VII) 4 7 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 7 9	ab	1 2 3 (I, II, III, IV, V, VII) 4 7 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sab, Kab, Kdab	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 8 9	aa	1 2 3 4 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Sac	{1 2 3 4 5 6 7}
3	6	24	1 2 3 4 8 9	ac	1 2 3 4 (I, II, III, IV, V, VII) 8 (I, II, III, IV, V, VII) 9 (I, II, III, IV, V, VII)	Kc, Sac, Kac (cs), Kdac (cs)	{1 2 3 4 5 6 7}

Number of static visual variables		Number of static and dynamic variables	Dynamized variables	Entities and levels	Combinations of variables	Methods of presentation	Age groups
dynamized variables	other variables						
3	6	24	<u>1 2 3 4 7 8</u>	αα	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
3	6	24	<u>1 2 3 4 7 8</u>	βa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
3	6	24	<u>1 2 3 4 7 9</u>	αα	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>9</u> (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
3	7	25	<u>1 2 3 4 5 7 8</u>	βa	<u>1 2 3 4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
3	7	25	<u>1 2 3 4 5 7 8</u>	βb	<u>1 2 3 4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
3	7	25	<u>1 2 3 4 7 8 9</u>	αα	<u>1 2 3 4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII) <u>9</u> (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
4	6	30	<u>1 2 3 4 5 7</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
4	6	30	<u>1 2 3 4 5 8</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 5</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
4	6	30	<u>1 2 3 4 7 8</u>	αb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sαb, Kαb, Kdαb	{1} {2} {3} {4} {5} {6} {7}
4	6	30	<u>1 2 3 4 7 8</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
4	6	30	<u>1 2 3 4 7 8</u>	αα	<u>1 2</u> (I, II, III, IV, V, VII) <u>3 4</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
4	7	31	<u>1 2 3 4 5 7 8</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3 4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
4	7	31	<u>1 2 3 4 5 7 8</u>	βb	<u>1 2 3</u> (I, II, III, IV, V, VII) <u>4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
4	7	31	<u>1 2 3 4 5 7 8</u>	βa	<u>1 2 3 4</u> (I, II, III, IV, V, VII) <u>5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}
5	7	37	<u>1 2 3 4 5 7 8</u>	βb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβb, Kβb, Kdβb	{1} {2} {3} {4} {5} {6} {7}
5	7	37	<u>1 2 3 4 7 8 9</u>	αb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII) <u>9</u> (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
5	7	37	<u>1 2 3 4 7 8 9</u>	αb	<u>1</u> (I, II, III, IV, V, VII) <u>2 3</u> (I, II, III, IV, V, VII) <u>4 7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII) <u>9</u> (I, II, III, IV, V, VII)	Sac	{1} {2} {3} {4} {5} {6} {7}
5	7	37	<u>1 2 3 4 5 7 8</u>	βa	<u>1 2</u> (I, II, III, IV, V, VII) <u>3 4</u> (I, II, III, IV, V, VII) <u>5</u> (I, II, III, IV, V, VII) <u>7</u> (I, II, III, IV, V, VII) <u>8</u> (I, II, III, IV, V, VII)	Sβa, MZa	{1} {2} {3} {4} {5} {6} {7}

Key:

Static visual variables

1 size; 2 form; 3 value; 4 colour; 5 grain; 6 orientation; 7 brilliance; 8 transparency; 9 aura; dynamized variables are underlined

Sound variables

② Pitch; ③ Register; ④ Loudness; ⑤ Timbre; ⑥ Duration; ⑦ Rhythm; ⑧ Rate of change; ⑨ Order; ⑩ Frequency

Entities / measurement levels

α point entities; β line entities; γ area entities;

a - nominal scale measurable entities; b - ordinary scale measurable entities; c - quantitative scale measurable entities

Methods of presentations

*S*_{ab} – Ordinary point signatures,
*K*_{ab} – Ordinary point choropleth maps,
*Kd*_{ab} – Ordinary point cartodiagrams
*K*_c – Dot method,
*S*_{ac} – Quantitative point signatures,
*K*_{ac} (cs) – Quantitative point choropleth maps,
*Kd*_{ac} (cs) - Quantitative point cartodiagrams,
*S*_{bb} – Ordinary line signatures,
*K*_{bb} – Ordinary line choropleth maps,
*Kd*_{bb} - Ordinary line cartodiagrams
*I*_c – isoline maps,
*S*_{ba} – Qualitative line signatures,

*S*_{bc} – Quantitative line signatures,
*K*_{bc} (cs) - Quantitative line choropleth maps,
*Kd*_{bc} (cs) - Quantitative line cartodiagrams
*K*_{αBb} – Ordinary Bertin’s choropleth map,
*K*_{γb} – Ordinary area choropleth maps,
*KD*_{γb} – Ordinary dasimetric choropleth maps,
*K*_{αBc} - Quantitative Bertin’s choropleth map,
*K*_{γc}(cs) - Quantitative area choropleth maps,
*KD*_{γc}(cs) - Quantitative dasimetric choropleth maps,
*S*_{aa} – Qualitative point signatures
*M*_{Ca} – Chorochromatic method maps,
*M*_{Za} – Range maps

The methods distinguished by italics are conditional for seventh age group

Age groups

[1] [2] [3] [4] [5] [6] [7] - correct combination of variables for labelled age groups

{1} {2} {3} {4} {5} {6} {7} {8} conditional combination of variables for labelled age groups

Functionalities

F1 - Navigation
 F2 – Import of layers or sub-animations
 F3 – Programming of animation
 F4 – Edition of animation:
 F4a – choice of information
 F4b - query of information
 F4c – choice of the scope of information
 F4d - choice of them mode of information
 F4e – choice of period
 F4f – choice of location

F4g – choice of the extent
 F5 – Choice of the method of data processing
 F6 – Choice of the type of visualization
 F7 – Analysis of spatio-temporal data
 F7a – comparison of layers
 F7b – comparison of layers with animation
 F7c - comparison of animations
 F7d – intersection of layers and animation
 F7e – intersection and/or incrustation of animations

Types of animation

1M – mono module
 1L – mono level
 MM – multi module
 ML - multilevel

Correct
combination

Combination
inaccessible
due to the
absence of *colour*

Combination
inaccessible
due to the
absence of *aura*

Combination
inaccessible
due to the absence
of *colour* and *aura*