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Selected Issues II
Major Information Systems

Benefits of Augmented Reality in Educational Environments

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I cite.[1]

And again.[2] Or again the first footnote.[1]

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[1]   T. Test, Test (1900)

[2]   T. Test, Test (1901)

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		Discovery-based Learning	Object Modelling	AR Books	Skills Training	AR Gaming	Sums
State of Mind	Increased Motivation	7	4	2	1	1	15
	Increased Attention	2	0	1	0	0	3
	Increased Concentration	2	0	0	0	1	3
	Increased Satisfaction	1	2	0	1	1	5
Teaching Concepts	Student Centered Learning	2	0	1	0	0	3
	Improved Collective Learning	1	2	0	0	0	3
Presentation	Increased Details	0	0	0	1	0	1
	Easy Accessible Information	0	0	0	1	1	2
	Interactivity	1	0	1	0	0	2
Learning Types	Improved Learning Curve	6	4	1	6	1	18
	Increased Creativity	2	0	1	0	0	3
Reduced Costs	Reduced Costs	0	1	0	1	0	2
Content Understanding	Development of Spatial Abilities	0	2	1	1	0	4
	Improved Memory	1	1	0	2	0	3

Tab. 3-1: Mapping of Benefits and Directions

4. Discussion

5.   Conclusion

Bibliography

T. Test, Test (1900)

   Test Test, Test: Tehhhst. In: Test Journal of Test. Nr. 1,   Jg. 100, 1900, pp. −120

T. Test, Test (1901)

   Test Test, Test: Tehhhst 2. In: Test Journal of Test the Second. Nr. 1,   Jg. 100, 1901, pp. −123