

**Table 1.** Constructs composed of different items and their statistical characteristics differentiated between FFF-participants (N=53) and other students (N=116) within the whole sample (N=169) comparing the pre- and post-test after the *k.i.d.Z. 21 – competent into the future* learning initiative. Significant changes of FFF-participants, but not occurring among other students are marked in yellow.

Total N=169 FFF N= 53 OS N=116	FFF M <sub>pre</sub>	FFF M <sub>post</sub>	FFF SD <sub>pre</sub>	FFF SD <sub>post</sub>	OS M <sub>pre</sub>	OS M <sub>post</sub>	OS SD <sub>pre</sub>	OS SD <sub>post</sub>	Significance (2- tailed) FFF/OS	t-value <sub>FFF/OS</sub>	t <sub>FFF/OS</sub>
<b>Knowledge (6-Likert Scale: surely false – surely right)</b>											
Evaluate the subsequent statements in respect to their accuracy.											
<b>Right answers (in total 7)</b>	<b>3.22</b>	<b>4.04</b>	<b>1.37</b>	<b>1.42</b>	<b>3.15</b>	<b>3.64</b>	<b>1.35</b>	<b>1.66</b>	<b>.000*/.005*</b>	<b>-3.972/-2.891</b>	<b>.48/.28</b>
selected examples:											
Summer tourism in the Alps will gain increasing importance due to climate change.	2.79	3.23	2.30	2.38	2.39	3.31	2.38	2.19	.309/.003*		
One of many impacts of climate change is an increasing erosion of soil.	1.58	2.68	2.87	2.91	1.22	2.65	2.61	2.64	.017*/.000*		
<b>False answers (in total 6)</b>	<b>1.50</b>	<b>1.83</b>	<b>1.00</b>	<b>1.08</b>	<b>1.86</b>	<b>2.19</b>	<b>1.10</b>	<b>1.39</b>	<b>.032*/.030*</b>	<b>-2.198/-2.203</b>	<b>.29/.21</b>
selected examples:											
Without greenhouse gases Europe would be a ice desert.	0.81	1.55	2.03	2.48	1.02	2.10	2.15	2.50	.039*/.001*		
A change in the economic production is only necessary if the most important resources of the earth are totally exploited.	1.17	1.51	1.37	1.34	1.29	2.12	1.86	2.03	.135/.001*		

Personal Concern (6-Likert Scale: not affected at all – totally affected)	4.49	4.79	.92	.70	4.50	4.61	.89	.83	.009*/.201	-2.698/-	.35/-
Which persons' life is affected by climate change in your opinion?											
<b>Concern "myself"</b>											
My life today	3.25	3.70	1.33	1.14	3.46	3.47	1.28	1.28	.022*/.951	-2.364/-	.31/-
My life in 20 years	5.15	5.36	.99	.83	4.97	5.21	1.15	1.11	.086/.033*	-/-2.156	-/.20
<b>Concern "my family"</b>											
The life of my family today	3.28	3.70	1.39	1.12	3.36	3.47	1.26	1.28	.026*/.459	-2.286/-	.30/-
The life of my family in 20 years	5.15	5.36	.91	.86	4.93	5.17	1.23	1.11	.078/.050		
<b>Concern "others" (today)</b>	<b>4.19</b>	<b>4.53</b>	<b>1.26</b>	<b>.89</b>	<b>4.37</b>	<b>4.27</b>	<b>1.03</b>	<b>.98</b>	<b>.044*/.307</b>	<b>-2.060/-</b>	<b>.27/-</b>
The life of people in Europe today	3.91	4.09	1.31	1.01	4.00	3.91	1.19	1.14	.268/.431		
The life of people worldwide today	4.47	4.96	1.37	.96	4.74	4.63	1.07	1.06	.016*/.325		
<b>Concern "others" (in 20 years)</b>	<b>5.37</b>	<b>5.59</b>	<b>.89</b>	<b>.61</b>	<b>5.27</b>	<b>5.51</b>	<b>1.05</b>	<b>.77</b>	<b>.071/.018*</b>	<b>-/-2.396</b>	<b>-/.22</b>
The life of people in Europe in 20 years	5.26	5.35	.92	.77	5.13	5.39	1.13	.90	.172/.026*		
The life of people in worldwide in 20 years	5.47	5.74	.91	.56	5.41	5.65	1.08	.78	.047*/.029*		

<b>Responsibility (6-Likert Scale: I do not agree at all – I totally agree)</b>	5.19	5.37	.65	.61	4.78	4.84	.84	.93	.079 / .545		
<b>Responsibility of “myself”</b>	<b>5.47</b>	<b>5.68</b>	<b>.75</b>	<b>.67</b>	<b>5.07</b>	<b>5.22</b>	<b>1.27</b>	<b>1.13</b>	<b>.086/.255</b>		
It is my personal responsibility to behave in a climate friendly manner.											
<b>Responsibility of “others”</b>	<b>5.13</b>	<b>5.31</b>	<b>.71</b>	<b>.66</b>	<b>4.73</b>	<b>4.77</b>	<b>.83</b>	<b>.96</b>	<b>.105/.678</b>		
It is up to politics to foster climate friendly behavior (e.g. by means of laws or financial support).	5.26	5.49	.90	.82	4.98	5.08	1.09	1.22	.096 / .442		
It is up to science to do research on climate changes and its impacts.	5.15	5.32	1.18	.89	4.84	5.03	1.15	1.16	.328 / .170		
It is up to economies to produce climate friendly products, even if it is expensive.	5.08	5.13	1.09	.96	4.60	4.73	1.18	1.07	.764 / .355		
It is up to organizations like Greenpeace to promote the protection of climate.	5.11	5.13	1.03	1.18	4.60	4.43	1.36	1.39	.926 / .250		
It is up to adults to behave in a climate friendly manner.	5.04	5.49	1.04	.82	4.61	4.58	1.43	1.52	.006* / .833		
<b>Self-efficacy (6-Likert Scale: really poorly - really well)</b>	<b>3.02</b>	<b>3.60</b>	<b>.97</b>	<b>1.06</b>	<b>3.54</b>	<b>3.79</b>	<b>1.04</b>	<b>1.21</b>	<b>.001* / .019*</b>	<b>-3.373 / -2.375</b>	<b>.42 / .22</b>
How well do you feel prepared regarding the changes induced by climate change?											
<b>Locus of Control (6-Likert Scale: I do not agree at all – I totally agree)</b>	<b>4.92</b>	<b>5.33</b>	<b>1.12</b>	<b>.86</b>	<b>4.76</b>	<b>5.14</b>	<b>1.06</b>	<b>.89</b>	<b>.003* / .000*</b>	<b>-3.089 / -3.935</b>	<b>.39 / .34</b>
I am able to contribute in reducing the magnitude of climate change.	5.09	5.42	1.43	.95	5.00	5.12	1.27	1.23	.104 / .402		
If world society collaborates, global warming can be limited to few degrees (plus 2-4°C).	4.77	5.43	1.22	1.02	4.46	4.97	1.37	1.14	.007* / .001*		
I am able to reduce my CO <sub>2</sub> -emission.	4.70	5.21	1.45	1.20	4.65	5.28	1.56	1.01	.013* / .000*		



<b>Waste separation</b>	<b>5.32</b>	<b>5.49</b>	<b>.87</b>	<b>.80</b>	<b>5.18</b>	<b>5.08</b>	<b>1.04</b>	<b>1.11</b>	<b>.245/.339</b>		
I separate waste, so that it can be recycled.											
<b>Alimentation</b>	<b>2.19</b>	<b>3.08</b>	<b>1.46</b>	<b>1.72</b>	<b>2.40</b>	<b>2.66</b>	<b>1.53</b>	<b>1.54</b>	<b>.001*/.061</b>		
I forego eating meat.											
<b>Consume</b>	<b>4.01</b>	<b>4.45</b>	<b>.86</b>	<b>.74</b>	<b>3.73</b>	<b>4.08</b>	<b>1.04</b>	<b>1.03</b>	<b>.002*/.000*</b>		
I try to repair things before throwing them away and buying something new.	4.77	5.02	1.17	.89	4.39	4.52	1.39	1.34	.220/.397		
Before I buy a product, I think about if I really need it.	4.26	4.53	1.32	1.05	4.10	4.34	1.47	1.47	.184/.074		
I don't buy products which are over-packaged.	3.96	4.74	1.33	.90	3.67	4.14	1.27	1.18	.000*/.000*		
When I buy a new product, I consider that it does not consume that much energy.	3.06	3.53	1.45	1.42	2.76	3.34	1.58	1.44	.061/.000*		
<b>Mobility</b>	<b>3.80</b>	<b>4.14</b>	<b>.98</b>	<b>1.01</b>	<b>3.41</b>	<b>3.77</b>	<b>1.29</b>	<b>1.30</b>	<b>.012*/.004*</b>		
I forego going by car (e.g. as well as passenger), instead I go by bicycle or public transport.	4.43	4.49	1.12	1.15	3.67	3.97	1.50	1.32	.754/.037*		
I forego going by airplane.	3.17	3.79	1.71	1.66	3.15	3.57	1.96	1.80	.009*/.018*		

<sup>2</sup> FFF = Fridays For Future participants; OS = other students; M = mean; SD = standard deviation; SR = scale reliability; pre = pre-test; post = post-test; r = effect size; \* significant result (p < .05)