



Learning vs Developing

By Ed Meyer

Students are supposed to learn in school. A popular question that is asked of school children is, “what did you learn in school today?”

Learning certainly is good. I love to learn new interesting things - about evolution, about history, about physics.

In school, the focus is on learning because it is easy to measure whether a student knows something. For example, the names of the three branches of government, the names of the seven phases of cell division, and the rule for multiplying fractions.

There are many ways to learn, you can learn by listening to a teacher, you can learn by reading a book, and you can learn by searching the internet. Of course, all these sources of information must be legitimate if true learning is to occur.

This type of education leaves out the ability to struggle for a long time with a difficult problem that requires creativity, logical reasoning, and the generation of new ideas. I call this part developing. Developing the mental stamina to struggle mightily with new, challenging, complex problems and the creativity and critical thinking skills to come up with new ideas that solve them.

The brain can't develop mental strength, and mental stamina and the ability to generate creative ideas that solve challenging problems by searching the internet, by listening to a teacher, or by reading a book. The only way to develop the ability to generate creative ideas that solve challenging problems is to struggle to generate creative ideas that solve challenging problems. That is, you must practice.

Learning and developing are very different processes and they occur in different parts of the brain.

It is important that both of these parts of the brain are developed because real world problem-solving requires two things. Knowledge about the problem

and the mental strength, mental stamina, and critical thinking skills needed to solve it.

According to the website HHS.gov (health and human services of the United States Government),

As adolescents go to school, live, and work, the brain trims down the extra growth based on the parts of the brain the adolescent actively uses.

The brain strengthens the connections that are used by wrapping a special fatty tissue around the cells to protect and insulate them.

So, the parts of the brain that are used will develop and the parts of the brain that are not used will atrophy.

As a recruiter at Imperial Chemical Industries (ICI) I interviewed many fresh college graduates whose frontal lobe had atrophied. This affliction is easy to spot, as they respond to a challenging problem with phrases like, “I have never seen a problem like this before,” “I don't know what I'm supposed to do,” “Can you give me a hint?”

They have lost the ability think hard to figure things out for themselves because that part of their brain was pruned. Whenever they didn't know what to do, a teacher or a parent was there to tell them. As a result, they became very good at doing what they were told, but they did not develop the ability to figure things out for themselves because they were never required to sit and struggle to figure things out for themselves.

A complete education should involve both learning and development. If students never have to struggle with challenging problems, they will not develop the ability to struggle with challenging problems. If students never have to discover things for themselves, they will lose the ability to have the AHA! moment that comes with independently reaching a new level of understanding.





Knight – Joker – Spy Mental Development Opportunities

By Ed Meyer

There is one Knight, one Joker and one Spy among Mr. Blue, Mr. Red, and Mr. Green. The Knight can't lie, the Joker can't tell the truth and the Spy can say anything. Identify all three. The solution is unique.

The problems require some thought, but as Voltaire says, "No problem can withstand the assault of sustained thinking."


For more problems, follow Ed on X.

https://twitter.com/Gedanken_Inst/


Mr. Red is the Knight.



Mr. Green is the Joker.




Exactly one of those statements is true.




The logical IF-THEN Statement

The logical IF-THEN statement is true only if the IF part is true and the THEN part is false. If the THEN part is true, the entire statement is true irrespective of the veracity of the IF part. If the IF part is false, the entire statement is logically true irrespective of the veracity of the THEN part. For example, "if the Earth were flat, ships could sail off the edge," is a logically true statement.

If you asked Mr Green if I were the Knight, he would say no.



If you asked Mr Green if I were the Knight, he would say yes.



The Spy is telling the truth.






Quote Acrostic of the Month

By Ed Meyer

Instructions: Fill in the words at the bottom from the clues. Then write those letters in the grid at the top to reveal an appropriate quote. Black squares indicate the end of a word, and punctuation has been removed. When you're done, the first letters of the answers to the clues, from top to bottom, will be the author of the quote.

QUOTE

1E	2L		3N	4C	5B	6R	7K		8M	9S	10D	11K	12R	13F	14A
	15Q	16I	17E	18G	19O		20A	21R							
22K	23C	24I	25G	26B	27R	28C	29O	30H		31F	32G		33O	34D	
35G	36B	37D	38K	39S	40E		41B	42K	43S	44J		45O	46I		
47J	48O	49J		50F	51H	52N	53M								
54D	55R	56E	57C	58B	59I	60D	61N		62P	63C	64J		65H	66F	67A
	68S	69H	70C	71G		72S	73E	74L	75N		76F	77O	78Q	79O	80P
	81O	82F	83B	84I		85J	86M		87L	88G	89D	90J			
91C	92P	93A	94L	95R	96E	97K		98G	99N	100K	101B				
102Q	103C	104L	105N		106P	107O	108I	109L		110B	111F				
112D	113R	114F	115Q	116B	117I		118J	119R	120I	121M	122E				
123F	124O	125N	126M	127K	128G	129O	130J	131L	132A						



CLUES

A. Salt the sidewalk	<u>132</u>	<u>14</u>	<u>20</u>	<u>93</u>	<u>67</u>						
B. Polite and courteous	<u>36</u>	<u>26</u>	<u>101</u>	<u>41</u>	<u>116</u>	<u>58</u>	<u>110</u>	<u>83</u>	<u>5</u>		
C. Larynx	<u>4</u>	<u>63</u>	<u>28</u>	<u>57</u>	<u>103</u>	<u>91</u>	<u>23</u>	<u>70</u>			
D. Sharp tool	<u>10</u>	<u>112</u>	<u>34</u>	<u>54</u>	<u>37</u>	<u>60</u>	<u>89</u>				
E. Sickness	<u>40</u>	<u>1</u>	<u>96</u>	<u>73</u>	<u>56</u>	<u>122</u>	<u>17</u>				
F. Special Troops in WWII	<u>123</u>	<u>66</u>	<u>50</u>	<u>111</u>	<u>31</u>	<u>82</u>	<u>13</u>	<u>114</u>	<u>76</u>		
G. "On time, _____, Never quit."	<u>32</u>	<u>128</u>	<u>71</u>	<u>88</u>	<u>18</u>	<u>35</u>	<u>25</u>	<u>98</u>			
H. Fellow	<u>30</u>	<u>69</u>	<u>51</u>	<u>65</u>							
I. Marlin, for example	<u>117</u>	<u>120</u>	<u>24</u>	<u>84</u>	<u>46</u>	<u>59</u>	<u>108</u>	<u>16</u>			
J. It can be piqued	<u>47</u>	<u>44</u>	<u>118</u>	<u>130</u>	<u>64</u>	<u>90</u>	<u>49</u>	<u>85</u>			
K. Elite frogman	<u>38</u>	<u>127</u>	<u>42</u>	<u>7</u>	<u>22</u>	<u>97</u>	<u>100</u>	<u>11</u>			
L. Navigational aid	<u>74</u>	<u>131</u>	<u>104</u>	<u>109</u>	<u>94</u>	<u>2</u>	<u>87</u>				
M. Author's "_____ Percent Rule"	<u>8</u>	<u>86</u>	<u>126</u>	<u>121</u>	<u>53</u>						
N. Marathoner, e.g.	<u>125</u>	<u>105</u>	<u>99</u>	<u>52</u>	<u>3</u>	<u>75</u>	<u>61</u>				
O. Heading for an ocean diver	<u>45</u>	<u>29</u>	<u>48</u>	<u>77</u>	<u>129</u>	<u>81</u>	<u>19</u>	<u>33</u>	<u>79</u>	<u>124</u>	<u>107</u>
P. Port	<u>80</u>	<u>92</u>	<u>62</u>	<u>106</u>							
Q. Platoon, brigade, or regiment	<u>78</u>	<u>102</u>	<u>115</u>	<u>15</u>							
R. Time when traffic is heavy	<u>55</u>	<u>95</u>	<u>21</u>	<u>27</u>	<u>119</u>	<u>113</u>	<u>12</u>	<u>6</u>			
S. Have had mess	<u>39</u>	<u>9</u>	<u>72</u>	<u>43</u>	<u>68</u>						

