**THE HEASLY THINKING SKILLS SYSTEM: COMMUNITY OF INQUIRY AND EDU-TENSEGRITY**

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| ***Abstract:*** *Having been fully involved in the Philosophy for Children pedagogy (devised by Professor Matthew Lipman five decades ago), I have integrated fully his Community of Inquiry classroom strategies to teach understanding about virtues, values and ethics to promote democratic procedures, higher-order thinking skills and authentic response to student questions. This paper details four pedagogical steps in the Heasly Thinking Skills System:*   1. *The art and skill of asking questions.* 2. *The ‘ME’ diagram.* 3. *The Six Steps of Decision-making.* 4. *The Heasly Uncertainty Grid – known by my students as the HUG/BUG.*   *The objectives and purposes of my refreshed theory of education, called EDU-TENSEGRITY, include the Heasly Thinking Skills System.*  ***Keywords:*** *Edu-Tensegrity, Heasly, Thinking Skills System, Six Steps* |

# Introduction

During the course of my PhD studies, I included my systematised thinking skills format based on deliberate use of the dialogue which forms the Community of Inquiry pedagogy (from the Philosophy for Children movement, Lipman,1988, 1991, 1993a, 1993b) in English, Social Studies, Religion and Values Education (Vardy, 1998), Business Studies and even Music Education. Within the Philosophy for Children format, there are particular strategies for dialogue used by each teacher/ facilitator (Cam, 2002b; Cherednichenko B & Wilks S, 1997; Leckey, M. 2009) which contribute to the promotion of student development of knowledge and understanding particularly in the fields of virtues, values and ethics. It is important to recognize that this format is deliberately aimed at teaching in a democratic setting how students can upskill their approaches to virtues, values and ethics for daily needs – both academically and personally. It becomes a logical extension for students, especially in an ethnically or religiously diverse classroom, who may wish to apply their chosen virtues, values and ethics for educational and moral needs (Splitter, L & Sharp, A.M, 1995). Students become aware of borders, and dialogues to address potential conflict, provide avenues which can transform understanding and acceptance of each other (Vardy, 1998). I maintain that my system can be extended to facilitate and build structures of commonalities, connection and shared pedagogy for teachers to test, understand and improve. Students learn to listen to each other at primary, secondary and tertiary levels of education (Senge, 2nd ed. 2004; Senge address, 2014; Tancredi, 2007; Taylor, 2007; Tishman, Perkins & Jay 1995).

I defined virtues, values and ethics within simple but very carefully examined boundaries:

*Virtues*: that chosen way of the individual which is the result of inner conviction regarding how to pattern personal behaviour. It emanates from a cycle of response > response-ability > - and responsibility (Heasly, 2015, ch. 3 Virtues; Miedema & Bertram-Troost, JTES, 2015).

*Values*: that chosen way of recognizing that personal behaviour contributes to the community as social interaction for the betterment or otherwise of all experience that takes place within the community (Heasly, 2015, ch. 3 Values; Kravale –Paulina & Olehnovica, JTES, 2015; Ulavere & Veisson, JTES, 2015).

*Ethics:* that chosen way of recognizing the formal and best standards of behaviour upon which the culture of a given society is based. There is a recognized and supportive level of higher-order thinking and debate which promotes the best forms of social interaction in the community, supported by the legal and political authority of that community or country (Heasly, 2015, ch. 3, Ethics; Switala, DCSE journal, 2015; Badjanova & Ilisko, DCSE journal, 2015; Gedzune, DCSE journal, 2015).

It is important to understand that teachers need professional training in the accompanying Community of Inquiry pedagogy to facilitate this aim in a sustainable manner (Splitter & Sharp, 1995). Reference to the many practitioners in Europe, United Kingdom, Canada, United States of America as well as Australia is the answer here. There is a well-honed training scheme of Level 1, 2 and 3 Certificates to accomplish this, available by connecting to the Philosophy for Children website at Montclair State University in New Jersey, and by connecting to the website of SAPERE, the Thinking Schools movement in United Kingdom and the various Australian State network of Philosophy for Schools.

The **Heasly Thinking Skills System** comprised four steps: the art of questioning (Heasly, 2015, ch. 4: Questions); the ‘ME’ diagram (Heasly, 2015, ch. 4: ME diagram); the Six Steps of Decision-making (Heasly, 2015, ch.7: Decision-making) and the Heasly Behaviour Uncertainty Grid, known by my students with whom I devised this strategy as the HUG/BUG (Heasly, 2015, ch. 4, fig. 4.3)

Following the Splitter and Sharp (1995) pattern of exploring, testing, building options, understanding the use of inductive thinking and my preference for trilectic thinking patterns (see Step 3), I have used the Community of Inquiry pedagogy to devise the first steps in building an architecture for teaching about the full spectrum of what is to count as virtues, as values and as ethics in 21st century education.

***First***, the art of questioning rests on question-starters: how/ where/ when/ why/ what/ which/ who/ and what if? This approach militates against random questions from students and takes account of the distinction between Socratic and Aristotelian patterns of questions.

**The Art of Questioning**:

HOW? WHERE? WHEN? WHY? WHAT? WHICH? WHO? WHAT IF?

Taking the time to facilitate a systematic attempt for students to build a bank of questions (Wassermann, 1997) on the topic under review provides important skills pertinent to focus for their curiosity especially when sifting and sorting their reasons for choices of how to choose or behave in any given situation (Heasly, 2015ch. 4: fig 4.1 and 4.2; Table 4.3). This pattern of inquiry became familiar for my students *first* as problem-solving within their studies. However, as students proceeded through senior school, they *then* discovered that the same system could also apply to contentious matters (Heasly, 2015 ch. 4: Discussion). Where there was a perceived conflict between what students perceived as the right/best way to handle a behavioural choice, and how to manage reasoning when two or more differing conclusions emerged, were apparent.

***Second***, the ‘ME’ diagram gives students a reflective picture of their personal milieu, by asking them to explore their individual landscape. The experience of individualism exhibited by students allowed them to identify much about their own personal milieu, and to be comfortable with identifying differences within classroom communities as well as in a wider context (Heasly, 2015, ch.4: Explanation, fig. 4.3).

‘**ME’ diagram**

**4**

**5**

**6**

**3**

**2**

**1**

**4**

**6**

**2**

**3**

**1**

**2**

**3**

**1**

**2**

**3**

**2**

**2**

**5**

1.home, family, kinder

2.school: primary, secondary, tertiary

3.hobbies, team sports, travel

4.suburb, town, shire

5.State, Province, Country

6.World, Universe and Beyond.

The **Six Steps of Decision-Making**:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Define the problem: presenting problem is not always the real problem** | | **List possible options, no matter how unusual: uncover deeper options** | | **Investigate each option: possibilities, consequences, pitfalls** | | **Invite expert opinion, advisement and research internet: rather than advice or counselling** | | **Choose the best likely option, listing other options in order of preference: a mistake is not failure, unless the problem-solver withdraws altogether** | | **Carry out the action, and then evaluate: armed with new knowledge retrace steps for another option if needed.** |   **Source**: (Heasly, 2012, 161)  ***Third***, the Six Steps of Decision-making allows students to see that while some decisions must be lightning-fast, there is another way of decision-making which gives each person responsibility for their own decisions allowing for building in of success and thereby fostering integrity (Heasly, 2015, ch. 4 Decision-making).  ***Fourth***, the HUG/BUG which was devised after careful research, so that students at relevant primary, secondary and tertiary levels could explore terminology, concepts and meaning in a way that allowed them to understand themselves, their studies and those in their own world (Heasly, 2015, ch. 4, fig. 4.4). Within the secondary classes where I taught, the Community of Inquiry was a very successful vehicle for the expansion of student self-understanding, self-knowledge and self-determination. |

The Heasly Uncertainty Grid (HUG/BUG)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OUTCOME** |  |  |  |  |  | **OUTCOME** |
| **Behavioural**  **response** | **Consequences** | **Features** | **ELEMENTS** | **Features** | **Consequences** | **Behavioural**  **response** |
| **Aggression** | **Immaturity** | **Laziness** | **PHYSICAL RESPONSE** | **Skills**  **Appetites** | **Strength** | **Perseverance**  **Courage** |
| **Tyranny**  **Deceit** | **Unpredict-ability**  **Hopelessness** | **Hysteria**  **Moodiness** | **EMOTIONAL RESPONSE** | **Wishes**  **Dreams** | **Response-ability** | **Honesty** |
| **Greed**  **Avarice** | **Narcissism** | **Selfishness** | **SOCIAL  RESPONSE** | **Communi-cation**  **Response-ability** | **Openness** | **Patience**  **Justice**  **Forgiveness** |
| **Jealousy**  **Envy** | **Prejudice**  **Inconsistency** | **Arrogance**  **Presumpt-ion** | **INTELLECTUAL  RESPONSE** | **Inquiry**  **Logic** | **Critical skills** | **Discernment**  **Responsibility** |
| **Abuse –  self or other** | **Despair** | **Nihilism** | **SPIRITUAL RESPONSE** | **Quest –  satisfaction wholeness** | **Personal paradigm** | **Integrity** |

This is my latest version of the HUB/BUG. In the Ethics curriculum at the time, there was space to explore and explain what a virtue was; what a value was; and what constituted an ethics curriculum so I developed content pertinent to 21st century. In the Community of Inquiry process, students constructed their own version of this chart, and this chart appears below.

Please understand that there would be a number of curriculum stages here for primary, secondary and tertiary levels of education (Tishman et al, 1995). However, I stress that democratic approaches, which avoid instructional insistence from teachers, are paramount, so students explore meaning, relevance and significance *within* the framework of the Community of Inquiry.

How the HUG/BUG works: The centre column shows my various elements of personality. The right hand columns show behaviours and their positive consequences. The left hand columns show behaviours and their negative consequences. Anecdotal evidence from those same students taught me that they saw significance here in relation to their studies, but also in relation to understanding and taking responsibility for their own lives.

I emphasize that this tool would be used particularly within the Community of Inquiry format allowing for the development of diverse students’ thinking skills, and addressing an information-based student learning experience without teachers mistakenly telling students *what* to think. *Neither* is it a testing or assessment tool.

I have developed a refreshed theory of education that accommodates and speaks to the main themes and challenges of this conference using the Heasly Thinking Skills System. I called the theory: **EDU-TENSEGRITY** (Heasly, 2015, ch.6: From Twelve Categories of Influence to the geodesic dome and the concept of edu-tensegrity). The term ‘tensegrity’ was used by Donald Ingber (1997) as an architectural concept identifying the kind of building that expanded and contracted where necessary without disintegrating. An example is the millennium dome in London. Another is the soccer stadium in Melbourne. A third is the central Science building in the Science Park in Konya, Turkey. He found the concept was common to all shapes and beings from omega to humans today, as they responded to circumstances and grew into life accommodating the new challenges faced. In this early form, Ingber acknowledged the use of the concept of bio-tensegrity. I went one step further and called my concept edu-tensegrity. My thesis and the book distilled from the thesis details this development very precisely.

Research included a Questionnaire for Teachers (Heasly, 2015, Appendix A) so that I could examine and analyse what teachers were telling me about students and their thinking skills. I took time to amass a very broad literature search to respond to the various themes which emerged from teacher-responses. I entered into an auto-ethnographical self-analysis covering three decades of my teaching practice. These three arms of the research are detailed carefully and fully in the thesis and in the book to accommodate the many potential borders where ‘lines in the sand’ must be negotiated.

My book, titled ‘Towards an Architecture for the Teaching of Virtues, Values and Ethics’ is published by Peter Lang Ltd., Oxford. Flyers are available if you wish to complete the details. In the book, the original HUG/BUG diagram is shown intact, because the work done in the classroom over an extended period of time aided students’ studies and their personal development. As a teacher-facilitator, I could not push students towards my personal academic goal which was striving towards an architecture for the teaching of virtues, values and ethics for a 21st century classrooms with diversity of cultures. You will notice therefore, that I have made certain changes to develop the nucleus of a pedagogical tool which can be further extended by relevant experts, whose experience and knowledge in psychology can shape this tool to address the many borders that challenge us in education more efficiently. The deliberate use of the title: *Towards an Architecture for the teaching of Virtues, Values and Ethics* – identifies my determination to highlight for teachers and others the inherent necessity to allow students’ responses to *emerge* as they develop the process of trilectic thinking patterns shown in Step 3: the Six Steps of Decision-making, rather than rely exclusively on binary thinking alone.

It is important to highlight that these changes include the trilectic pattern of thinking which proved significant in helping students to recognize that each individual would need to think and reason carefully, and where necessary to ask for help from their choice of informed sources.

**APPLICATION AND UNDERSTANDING OF THE HUG/BUG**

*The pattern: response > response-ability > responsibility*:

By referring back to the Six Steps of Decision-making, it can be seen that each student/person has the opportunity, within the home culture, to sift and sort through whatever options that are possible. However, the *response* will be a measure of the individual’s thinking and reasoning. This of course relies on *response-ability*, that ‘ability to respond’ – the capacity based on intention, understanding, knowledge, insight, maturation levels, and sense of what is to count as being a right or appropriate action in a given situation. Then, once the final decision has been made, the personal *responsibility* for carrying out this right or appropriate action is the outcome of the whole ‘thinking skills system’.

It follows here that once having identified how the patterns work in the Heasly Thinking Skills System, variations and improvements can be made to suit curriculum demands of each country according to cultural and other considerations. This would of course lead on to other pedagogical tools addressing consequences, intentional and unintentional.

This version of the HUG/BUG is the one which appears in the book (Heasly, 2015, ch.4, fig. 4.4). The earlier version above is my insertion of concepts. I have taken this one step since the publishing of the book, which is to insert several new concepts, as a way of indicating how further developments could be made to suit particular cultures, religions or national profiles shaping the content towards particular borders, conflicts and reconciliation needs. Both the Student version and my later version appear here for your analysis and possible development.

The Heasly Uncertainty Grid (first student version)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OUTCOME** |  |  |  |  |  | **OUTCOME** |
| **Behaviour** | **Consequences** | **Features** | **ELEMENTS** | **Features** | **Consequences** | **Behaviour** |
| **Aggression** | **Stultificat­ion** | **Laziness** | **PHYSICAL RESPONSE** | **Skills**  **Appetites** | **Strength** | **Perseverance**  **Courage** |
| **Tyranny**  **Deceit** | **Unpredict-ability**  **Hopeless-ness** | **Hysteria**  **Moodiness** | **EMOTIONAL RESPONSE** | **Wishes**  **Dreams** | **Response-ability** | **Honesty** |
| **Greed**  **Avarice** | **Narcissism** | **Selfish-ness** | **SOCIAL  RESPONSE** | **Communi-cation**  **Love** | **Openness** | **Patience**  **Justice**  **Forgiveness** |
| **Jealousy**  **Envy** | **Prejudice**  **Inconsistency** | **Arrogance**  **Presumpt-ion** | **INTELLECTUAL  RESPONSE** | **Inquiry**  **Logic** | **Critical skills** | **Discernment** |
| **Abuse –  self or other** | **Despair** | **Nihilism** | **SPIRITUAL RESPONSE** | **Quest –  satisfaction wholeness** | **Personal paradigm** | **Integrity** |

**Conclusion**

It is important to recognize that sustainability in these matters for teachers relies on promotion of a pedagogy which encourages strong thinking skills, democratic classrooms, and sustainable education. We owe the present generations that legacy (Gardner, 2008; Giddens, 1998; Hargreaves, 2008). We cannot escape our *responsibility* to move from theory to action in a sustained, thoughtful and accurate *response* –but we need that extra knowledge and skills so that we hone our *response-ability*. The world needs our contribution.

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