



## "Breaking the Code" on LGBT History

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Contributed by Scott Hirschfeld

A high school mathematics teacher recently queried, "I want to bring the message of LGBT inclusion to my classroom, but I'm a math teacher. What can I do, change the word problem to read 'Jim and Bob' instead of 'Jane and Bob'?" The latter part of my friend's question was delivered with a degree of sarcasm and an even greater measure of frustration. He is not alone in his quandary. Just a few short years ago, teachers like my friend had never considered discussing LGBT issues in their classrooms. Today, however, numerous districts have broadened their definitions of diversity and made true curricular inclusion a possibility for the first time. As the door has opened wider, many educators find themselves simultaneously excited and overwhelmed. While new tools and ideas for LGBT inclusion are becoming more and more available, many teachers feel stuck when it comes to blending these materials into daily lesson plans. Like my friend, who is unsure how all of this fits into his world of figures and formulas, many are stumped about the how-to of LGBT inclusion. To my colleague I offer a two-part reply, which I hope will be helpful to the myriad of dedicated educators wrestling with the challenge of inclusion.

My first response is a simple 'yes'-- yes, you should change some of the word problems to read 'Jim and Bob,' and also 'Jane and Sally,' 'Carlos and Ming,' and 'Mohammed and Olga.' Though these revisions might seem artificial, we must not underestimate the power of language to shape our thoughts. Names and labels are hooks on which we hang ideas within our

minds. Diversifying the names, and therefore the images, that are brought into the classroom can significantly broaden the ways students categorize human beings and their connections to one another. For many students, a same sex or multiracial couple embedded in a math problem may be the first opportunity they have ever had to envision or consider the range of people and relationships that exist in the world. Simple curricular changes, then, that expand our students' speech and thought should never be understood as trivial or minor contributions to the cause of inclusion.

My second response lies in the responsibility we all have to our entire school communities. Whereas my friend has confined his role to the teaching of formulas, I see him as a member of a team of teachers and a larger educational community. If he were to view his role in a more expansive fashion, the limits he feels might begin to fade. He might, for example, be able to envision himself discussing the need for LGBT inclusion with his administration or forming a faculty committee to explore such issues. He might consider the possibility of networking with LGBT headed families or community organizations that offer anti-bias programs in schools. He might even imagine himself as a GSA advisor or the speaker at the next school assembly or town meeting. These broader involvements might, in turn, trickle down into the way he conceives his content area. While formulas may be the mainstay of his subject, he may begin to discover the "hidden history" of LGBT people that exists in every field. Behind every great theory and formula is a

human being. Sometimes the life experiences and identities of these people have had some bearing upon their work. Often they will have an impact upon the students who are studying them.

Rodney Wilson, a Missouri teacher, reasoned that the absence of inclusive images in our school books provides a distorted image of our history and deprives many students of the ability to find a heritage of which they can be a part. Wilson organized teachers and community leaders around the first LGBT History month celebration in 1994. October, 1999 marks the sixth LGBT History month, an opportunity to commemorate the unique contributions of LGBT people throughout history-. It is often tricky to speculate as to the connection between these figures' sexual identity and their victories, defeats, or body of work; it is easy, however, to understand how the inclusion of their stories can bolster awareness, understanding and pride in the people who hear them. For my friend, the math teacher, I offer a consideration of one of this century's greatest mathematicians, who also happened to be a gay man.

Alan Turing is considered by many to be the father of the modern day computer. As far back as the 1930's, he conceived of a single machine that could perform multiple tasks, including numerical work, algebra, code breaking, file handling, and even chess. The Turing Machine made its first appearance in 1948, paving the way for major technological advances.

Unfortunately, Turing was forced to share his moments of scientific glory with intense personal pain. Turing was an openly gay man during a time of limited individual freedom. Ironically, a war based on the elimination of persecution was followed by an era of mistrust, McCarthyism and reduced freedom for homosexuals, Jews and other "national threats." Though Turing served as a code breaker for the British military during World War II and ultimately contributed to the defeat of German forces, he was later denied a security clearance by the government when it was discovered he was a homosexual.

Turing's single handed ability to crack the German Enigma code, considered to be unbreakable, allowed Allied forces to detect German U-boats and all secret transmissions, a feat that many credit as a turning point in the war. Nonetheless, in 1952, Turing was arrested and tried after police learned of his sexual relationship with another man. To avoid a prison sentence, Turing agreed to a year of estrogen injections intended to neutralize his libido, a decision that would have fatal consequences.

On June 8, 1954, Turing was found dead, a half eaten cyanide laced apple beside him. Though his mother believed this to be the accident of a careless scientist, the coroner declared Turing's death a suicide. During his 42 years, Turing's contributions to the worlds of science and technology were many. One can't help but contemplate, however, what further advancements might have come had fear and prejudice not snuffed Alan Turing's flame before its time.

*For more information on Turing's life and ideas for classroom discussion, see the lesson ideas and bibliography that follow.*

### Teaching About Alan Turing

*(Some of the suggestions that follow are appropriate for all ages, others for secondary students only. Guidelines have been given, but please use discretion in choosing discussion topics for your students).*

- Read "McCarthyism and the Witch-Hunt Mentality" (in Jennings, Kevin ed. (1994). *Becoming Visible: A Reader in Gay and Lesbian History for High School and College Students*. Boston: Alyson Pub.) Talk with your students about the historical era in which Alan Turing lived. Discuss the perceived threat of Communism and the resultant persecution of gays, Jews, liberals and other groups. Explore how the historical context might have influenced Turing's work, experiences as a gay man, and his

ultimate suicide. *(appropriate for secondary students)*

- Just as Turing's experiences as a gay man in the 1940's and 50's had negative consequences on his life, they may have also impacted upon him in positive ways. His biographers state that his work was most vibrant during the time he was open as a gay man. Comfort and conformity, they say, were left behind and Turing was more outspoken and exuberant. Ask your students how Turing's identity as a gay man may have impacted his work as a scientist in positive ways. *(appropriate for secondary students)*
- Alan Turing contributed to the defeat of the German forces during World War II through his code breaking abilities. Later, when they found out that he was gay, the government barred him from working within their code breaking division, and eventually submitted him to chemical castration as a punishment for his sexual behavior. *(appropriate for secondary students)*
  - o Discuss the cruel irony of a government that punished a man who once served it bravely. Was Turing a security risk simply by virtue of his sexual identity? Are there groups who you think are risks to our national security? Does the government exclude homosexuals or other groups from employment today based purely on sexual orientation or other affiliations?
  - o Discuss the extent to which the government is responsible for the death of Alan Turing. Consider what contributions he might have made to the world had he not felt compelled to take his own life.
  - o Students may be surprised to learn that chemical castration and forced sterilization have occurred in some states as recently as the 1970's. Discuss the constitutionality of such practices, and the balance between individual freedom and laws that

protect the common good. Research current law to find out whether or not such policies exist today.

- Alan Turing's skill as a code breaker during World War II contributed to the defeat of the Nazi forces. Collect and share books with your students that explore the science of decoding/deciphering. For fun and to build mathematical thinking, present your students with some secret codes to crack. Alternately, have them design their own codes for classmates to break, or write messages in code to one another and then decipher them. *(appropriate for primary & secondary students)*
- Some of Alan Turing's teachers had less than favorable things to say about him:

*One French teacher wrote: "His lack of interest is very depressing except when something amuses him."*

*A Latin teacher said: "He ought not to be in this form of course as far as form courses go. He is ludicrously behind."*

*Even one of his science teachers described his work as "not very good" and "dirty."*

Ask students to consider how closely their teachers' characterizations of them match who they really are. Write about or discuss the discrepancies. Discuss the extent to which they feel success in school will lead to later personal and professional success. How much does our school experience define our accomplishments as a person? Where else do we look to measure our achievements/growth as human beings? *(appropriate for primary & secondary students)*

**Further Resources:**

**Books**

- Gottfried, Ted. (1996). *Alan Turing: The Architect of the Computer Age* (Impact Biography). Franklin Watts, Inc.
- Hodges, Andrew. (1997). *Turing* (no. 3 of the series *The Great Philosophers*). Phoenix.
- Hodges, Andrew. *Alan Turing: The Enigma*. Random House Books.
- Strathern, Paul. (1999). *Turing and the Computer (The Big Idea)*. Anchor Books.
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***A Play***

- Whitemore, Hugh. *Breaking the Code*.

***Website***

- The Alan Turing Homepage:  
<http://www.turing.org.uk/turing/>

***Computer Software***

- Barwise, Jon & Etchemendy, John. *Turing's World*. CSLI Publications. (Distributor: Cambridge University Press).