

A Project entitled

Changing Perspectives: A Diachronic Corpus-Based Critical Discourse Analysis on the Portrayal of Sex Education in Mainland China, Hong Kong and Singapore, 2000-2019

Submitted by

GAO Liyuan

submitted to The Education University of Hong Kong

for the degree of *Bachelor of Education (Honours) (English Language)*

in May 2020



Declaration

I, $GAO\ Liyuan$, declare that this research report represents my own work under the supervision of $Dr\ XIE\ Qin$, and that it has not been submitted previously for examination to any tertiary institution.

Signed:

Student Name: Gao Liyuan

Date: May 23rd 2020

Changing Perspectives: A Diachronic Corpus-Based Critical

Discourse Analysis on the Portrayal of Sex Education in

Mainland China, Hong Kong and Singapore, 2000-2019

Abstract

The purpose of this corpus-based study was to explore the portrayal of sex education in

Mainland China, Hong Kong and Singapore in two periods. Six sub-corpora were built based

on news articles from online databases for further critical discourse analysis. Findings

suggested that sex education was portrayed differently depending on the time and the

region/country. Discussion focuses on the factors related to the diachronic changes and

regional differences including political, social, and cultural aspects.

Keywords: sex education; corpus analysis; critical discourse analysis

1. Introduction

Sex education is gaining increased attention not only in the field of education but also in public

discourses. It generates the need to look into the real situation of sex education and to

investigate voices from different stakeholders. However, little has been researched about this

topic in linguistics. Many existing studies focused on gender representations and sexual

The Education University of Hong Kong Library

films. Therefore, it could be interesting to undertake a diachronic corpus-based critical discourse analysis (CDA) of news discourses (Bednarek & Caple, 2014) to study the portrayals of sex education. In addition to Mainland China (i.e. the hometown of the author), two other Confucius-heritage societies - Hong Kong Special Administrative Region (SAR) and

identities using discourse analysis of popular media, e.g. advertisements, TV commercials, and

Singapore are chosen for comparison. While sharing a common cultural heritage, the three

regions have undergone different levels of western influence, which may affect the general

attitudes to and the values attached to sex education. The research was guided by the following

three research questions (RQs):

1. How has sex education been portrayed in education-related/mainstream

newspapers in Mainland China, Hong Kong SAR and Singapore between 2000 and

2019?

2. What are the potential factors related to the diachronic changes of portrayals of

sex education in each region?

3. What are the potential factors that can explain the differences among the three

regions?

The following section will review literature about concepts related to the methods and

background knowledge about sex education in the three contexts.

The Education University of Hong Kong Library

For private study or research only.

Not for publication or further reproduction.

2. Literature Review

In this section, literature about the use of corpus-based critical discourse analysis will be reviewed regarding corpus linguistics and critical discourse analysis. Then research findings of sex education in media discourses will be presented and discussed. Finally, the progress of sex education in Mainland China, Hong Kong SAR and Singapore will be examined to provide direction for quantitative and qualitative analyses.

2.1 Corpus-based critical discourse analysis

Corpus linguistics (CL) techniques usually make use of statistics generated by computer software for further quantitative and qualitative analysis. The advantages of this approach are widely discussed. For example, it offers a relatively high degree of objectivity (Baker, Gabrielatos, KhosraviNik, Krzyżanowski, McEnery & Wodak, 2008) suggesting a reduce of the bias from researchers when investigating. Moreover, it enables researchers to examine incremental language use (Baker, 2006; Mautner, 2009), e.g. searching certain language patterns and categorizing manually. Such characteristics, however, may lead to the criticism on its tendency to neglect the context. Nevertheless, it could be solved by the examination of concordances to recreate the context (cited in Baker et al., 2008). With the contextual elements inferred from the concordance lines, analysts could make interpretations of the social meanings contained in the language in addition to linguistic meanings.

CDA is essentially an analytic approach in discourse analysis (DA). What makes CDA differ from other approaches is that it takes a constructivist/discursive approach and views linguistic data as a social practice. It emphasizes on understanding language functions in contexts (cited in Baker et al., 2008) to show that how social phenomena (e.g. views towards "sex education" in this study) are discursively constituted by considering ethical, political and cultural structures (Williamson, Given, & Scifleet, 2017). For example, Wilkinson (2019) uses CDA to analyse how bisexual identity is constructed and represented in *The Times* corpus from 1957 to 2017. It investigated how sexual identity is ideologically shaped by relations of societal changes over history, e.g. the meaning of "bisexual" changes over 60 years. Such a study shows the significance of implementing CDA in analysing public discourses (e.g. news) to reveal the relationship between language and society. When analysing with CDA, different approaches could be considered. For example, Fairclough's Dialectical-Relational Approach tries to find out social conflicts in discourses by critical semiotic reflection (Fairclough, 2016); Van Dijk"s Socio-Cognitive Discourse Analysis emphasizes the interaction between discourses, society and cognition (Van Dijk, 2016); Wodak's Discourse-Historical Approach (DHA) brings historical, political, and social analyses together at both textual and contextual levels (Reisigl & Wodak, 2016). In this study, DHA is chosen to analyse diachronic changes under historical background.

Since the two methods, i.e. CL and CDA, have their strengths and weaknesses, it becomes natural to combine them (Mautner, 2009) to eliminate the potential problems and exploit the strong points at the same time. Bednarek and Caple, for instance, argued that CL techniques can help provide indications of discursive construction on specific topics and quantify discoursal phenomena in CDA (Baker et al., 2008), e.g. absolute and relative frequencies. More importantly, CL analysis could utilize the framework of CDA to interpret the findings, e.g. utilize CDA notions to group keywords and collocates based on semantic preference (as in this research). Furthermore, the synergy of the two methods may enable researchers to study the collocations from both theoretical and methodological perspectives (Salama, 2011). For instance, collocations could help re-contextualise the discourse topic by analysing the collocated words. Hence, the combination of CL and CDA could be a profitable approach in analysing social-cultural topics such as sex education.

Sex education has become a huge topic of public debate since the last century when the "sexual revolution" took place in the 1960s and the "AIDS (Acquired Immune Deficiency Syndrome) crisis" in the 1980s. There is no surprise that sex education has reflected the evolving ideas about gender relations, sexual identities, hygiene and health (Carr & Bednarek, 2019; Rothmüller, 2018). The increased public attention could be inferred from issues reported in

media about sexually transmitted infections (STI), sex crimes, safer sex, and maternal health (Boynton & Callaghan, 2006). Nonetheless, the portrayals of sex and gender in media discourses tend to be stereotypical. For example, abstinence is encouraged among young women (Carr & Bednarek, 2019) while virginity for young men is discouraged (Clarke, 2009); bisexual people are not treated as the same as homosexuality and heterosexuality in *The Times* corpus (Wilkinson, 2019) while a joint statement by 12 United Nation entities (2015) has been released for years calling for an end to discrimination against the group. Such gender inequality/stereotype represented in media discourses also provides circumstantial evidence for the current situation of sex education and the need for development.

2.2 Sex education in Mainland China, Hong Kong SAR and Singapore

In Mainland China, sex education in school is directed by the national curriculum but the content is integrated into different school subjects (UNESCO, 2018). The main purpose of sex education in school is to regulate young people to be self-disciplined and rational for being sexually healthy. The construction of sexual knowledge emphasizes on defining healthy sexual and social behaviours to encourage adolescents to improve hygiene and observe sexual abstinence as a way to prevent sexually transmitted diseases (STD) and teenage pregnancy (Aresu, 2009). Relating to the Confucianism culture, which encourages repressing sexual desires, issues related to sex are taboo topics for discussion and tend to be avoided in schools

such as sexuality and HIV (Human Immunodeficiency Virus) / AIDS (Zhang, Li & Shah, 2007). Teenagers curious about such topics would seek knowledge from the media and the internet by themselves, which at times exposes them to false information and even sexual predators. Sex education in Mainland China, therefore, focuses primarily on moral values (Liang, Tan & O'Halloran, 2017) and sexual abstinence for the prevention of STD such as HIV/AIDS and teenage pregnancy (Xiao, Mehrotra & Zimmerman, 2011). The abstinence approach could be an effective way to meet the social purpose of controlling the population and promoting public health in the last century. However, its limitations gradually emerged (Aresu, 2009). One of the biggest variables is the societal changes which are largely influenced by western culture. With more open-minded views about sexuality introduced to Mainland China, sex education shifts from valuing virginity to cherishing sexuality as part of personal subjectivity, which means people start to think about themselves as sexual beings (Liang, Tan & O'Halloran, 2017). While the social trend nowadays in Mainland China advocates more open attitudes towards sex, sex education in school has not seemed to catch up with the trend, nor is it able to prepare young people before they encounter their first sexual experience. In general, the traditional approach of abstinence and the changing social situations could be challenges for sex education in Mainland China but also opportunities for change.

Similar to the strategy in Mainland China, sex education in Hong Kong SAR is not treated as a separate subject but integrated into relevant school subjects, e.g. Science and General Studies. It is developed as a school-based curriculum supplemented with extra-curricular activities like workshops and exhibitions which are organized by schools. However, the barriers in the implementation were also noticed. Schools tended to give it low priority and did not treat it as an explicit learning objective. At times, teachers of sex education were found not equipped with proper knowledge to teach related topics (Legislative Council Secretariat, 2018). It could be a reason to explain that the sexual knowledge of youths in Hong Kong declines nowadays (The Family Planning Association of Hong Kong, 2017). Also, the schools lacked time in providing effective AIDS/HIV or sex education and avoided sensitive topics such as the usage of condoms (Department of Health, 2014). It is not surprising to find the traditional Chinese culture still had an impact on people's views towards "taboo" topics of sex education as above while youths in the postcolonial Hong Kong, which has been an international city and encountered various values from the outside world for decades, adopted greater acceptance of diverse sexual orientations and received increased exposure to pornography (The Family Planning Association of Hong Kong, 2017). In summary, sex education in Hong Kong has developed stably with influence from the mixed culture of the East and West while the schoolbased curriculum has encountered some barriers to be solved.

Sex education in Singapore is similar to that in Mainland China to some extent. For example, the abstinence-only approach is promoted by the government through different programmes to help "protect students from sexual advances and abuse, and avoid sexual experimentation and activities that lead to problems related to teenage pregnancies and STIs/HIV" (MOE, 2019). One major reason for that is that the People's Action Party (PAP), Singapore's ruling political party has portrayed itself as "morally conservative" to maintain its political legitimacy (Chong, 2011). On the other hand, the business-minded PAP government also shows tolerance to sexual diversity, which is driven by economic interests on the economic opportunities from the LGBTQ culture (also called pink capitalism) such as LGBTQ-specific products and nightclubs and LGBT tourism. It brings another point that is worth noticing in Singaporean conservative sexuality education—the almost "non-existence" of LGBTQ group, i.e. the group is seldom mentioned in school education. Though thanks to the public arenas of popular culture and the widespread mass media, the diverse sexual identities gained visibility under the cultural and economic globalization, comprehensive sex education is needed to solve the problem thoroughly (Liew, 2014; Koh & Chong, 2014).

Table 1 presents a summary of the similarities and differences among the three contexts.

Table 1:

A Brief Summary of Sex Education in Mainland China, Hong Kong and Singapore



Mainland China Hong Kong

SAR

Singapore

Background (in general)				
Eastern culture				
Western culture				
Government				
Provide guidelines				
School Curriculum				
Regional/national curriculum				
School-based			_ / _ 1	
Abstinence approach				
Topics about gender diversity	□ / □ 2	□ / □ 2		
Explicit teaching time				
Compulsory teacher training				

1: Independent and faith-based government-aided schools may conduct their sexuality education programmes which are required to be aligned to the MOE framework for sexuality education (Legislative Council Secretariat, 2018).

2: The decision depends on the schools.



3. Methodology

The section includes the introduction of corpus building and brief analytic procedures.

3.1 Building the Corpora

As the research is about sex education, education-related newspapers are the first choices for data collection and then the mainstream newspapers, which are more likely to talk about the issue in columns like "education", came into consideration. Therefore, "China Education Daily (中国教育报)", "China Teacher's Paper (中国教师报)", "Jiangsu Education Daily (江苏教育报)", and "Tianjin Education Daily (天津教育报)" which are closely related to education in China are chosen. However, no such newspapers in Hong Kong SAR and Singapore are orienting at education. In that case, "South China Morning Post (Hong Kong)" and "The Strait Times (Singapore)" are selected as they are one of the largest and most influential newspapers in the regions (Centre for Communication and Public Opinion Survey, 2016; Singapore Press Holdings, 2019) with separate columns to discuss issues about education.

The newspaper texts related to Hong Kong SAR and Singapore are collected from the global news database "Factiva" and those about Mainland China are from "China National Knowledge Infrastructure" (CNKI/中國知網) with different criteria (see Appendix 1). Considering the diachronic research, there will be six sub-corpora in total as listed below, i.e.

C1 & C2 for mainland China, HK1 & HK2 for Hong Kong and S1 & S2 for Singapore. The texts exported from both databases are first shown on a web page and then copied and saved in text files (UTF-8) while the articles from CNKI are saved separately due to the technical feature of the CNKI database. Further modifications include deleting redundant information such as dates and publishers so that only the title and the main body will be included. For the two Chinese sub-corpora, the Chinese texts are segmented based on the Hidden Markov Model by using an application called "Fenci" before the data were entered into AntConc for analysis.

Table 2: List of Sub-corpora and Corpus Size (Word Tokens)

	Mainland China	Hong Kong	Singapore
DL 1. 2000 2000	C1 (61,617)	HK1 (196,662)	S1 (174,506)
Phase 1: 2000~2009	– 48 articles	– 292 articles	– 289 articles
Phase 2: 2010~2019	C2 (35,419)	HK2 (99,917)	S2 (103,528)
	– 36 articles	– 151 articles	– 177 articles

3.2 Analytical Procedures

The corpora data will then be analysed by the programme AntConc. The analysis usually starts by studying the "word list" and categorizing the words of high frequency by corresponding topics, e.g. government, AIDS, and sexual abuse. Then a set of deeper research on the keywords of the topics will be done with statistics from "concordance", "collocates", and "clusters", e.g.

searching words "abuse" and "assault" for the topic "sexual abuse". Extracts from the news articles will be examined by clicking the results for further CDA about the social, political, and cultural impact. Moreover, "keyword list" will be used with the sub-corpora of larger size as the reference corpus for comparing the diachronic changes, e.g. use C1 as the reference corpus to export a keyword list for C2.

4. Findings and Discussion

In this section, results will be shown and discussed to answer the research questions. The findings supported with AntConc screenshots and texts extracted from certain databases are mainly shown to answer the first research question (RQ1), i.e. how sex education is portrayed in different periods of different countries/regions. Minor discussions will be made accordingly. The possible factors of the synchronic changes and regional differences, i.e. RQ2 and RQ3, will then be discussed by looking into political and cultural aspects under certain historical backgrounds. (Note: sources of extracts follows the titles in the databases.)

4.1 RQ1: Portrayals of Sex Education

Table 3 below is constructed based on the results of Word List in each sub-corpora (see Appendix 2, 5, 7, 14, 19, and 27 for detail). The topics in the table do not always consist of

words with high frequency, but the existence of the words under a certain topic shall indicate the significance of interpreting the topic in the issue of sex education. To avoid ambiguity, the highest word frequency of words in each topic are listed with "()" below.

Table 3: Topics Generated by Studying Six Sub-Corpora

	Phase 1: 2000~2009	Phase 2: 2010~2019
Mainland	AIDS (141) / sexual abuse (64) / family	AIDS (47) / sexual abuse (97) /
China	(172) / love (43) / homosexuality (20)	family (88) / rural areas (14)
Hong	AIDS (257) / sexual abuse (134) / family	AIDS (57) / sexual abuse (64) /
Kong	(522) / pregnancy (94) / government	family (255) / pregnancy (73) /
SAR	(372) / internet (160) / religion (57) /	government (178) / pornography
	sexuality (73)	(69) / religion (23) / sexuality (52)
Singapore	STI (348) / sexual abuse (77) / family	STI (86) / sexual abuse (57) /
	(585) / pregnancy (148) / government	family (391) / pregnancy (49) /
	(165) / internet (127) / religion (129) /	government (60) / pornography
	homosexuality (239) / abstinence (170) /	(104) / religion (46) / sexuality
	medicine (70)	(185) / abstinence (35)

The frequency identified in the table will not be further mentioned in the report.

4.1.1 Common characteristics among the regions



Regardless of the time and region, the three common characteristics of the portrayal of sex education are the concerns for AIDS prevention, sexual abuse, and family sex education suggested by the high frequency in the table above. Firstly, the high word frequency of words "艾滋病"(AIDS) and "AIDS" in the corpora of Mainland China and Hong Kong SAR and the cluster "预防 艾滋病" (AIDS prevention), i.e. 30 times in C1 (see Appendix 3) demonstrate that the focus of sex education is on the health care and providing knowledge about self-protection for students. Similar results could also be found in the corpora of Singapore whereas the terminology changes to STD/STI. For example, the word frequencies of "aids", "hiv", "sexually", "transmitted", "diseases", and "infections" in S1 are 348, 165, 158, 102, 80, and 59 (see Appendix 19-STD). However, the needs for education about AIDS prevention are still noted in the corpora such as the lack of unified health education curriculum in universities in Mainland China:

"…目前,我国高校里没有统一的健康教育课,一些学校的健康教育课尤其是性教育和防治 艾滋病教育是'羞答答的玫瑰静悄悄地开',很难满足广大青少年学生的需求。…" (quoted from 中国教育报:"'防艾'教育的理想与现实" on December 4th, 2009)

It possibly results from the cultural background of Chinese as "sex" tends to be a taboo topic for discussion which makes it difficult for sex education to have progressive changes with such a large population.

The prevention of sexual abuse is another main issue of sex education in schools. What is surprising is the high relevancy to "child" regarding "abuse" or "sexual abuse". For instance, the most frequently collocated content word with "性侵犯" (sexual abuse) in C1 is "儿童" (kids) with the frequency of 26 and followed by "孩子" (children) with the frequency of 22 (see Appendix 4); the two groups "未成年人" (juveniles) and "孩子" (children) in C2 are collocates of "侵害" (assault) with frequencies of 17 and 10, respectively (see Appendix 6); and the frequency of the cluster "child abuse" (i.e. 10) in S1 is just below that of "sexual abuse" (i.e. 28) when searching by the cluster size of 2 to 3 (see Appendix 22). It somehow illustrates the lack of sex education in younger generations and coincides with the circumstance that the younger the students are, the less the schools are mentioned in the corpora. Considering the result of HK2 (see Appendix 14), the frequency of secondary schools (i.e. 55) is higher than that of primary schools (i.e. 22) which is followed by kindergartens (i.e. 3). The tendency of the higher frequency with higher education indicates an assumption that sex education is more and more needed or more proper to be discussed when students grow up. However, such a tendency does not seem to be positive for sex education thinking about the need for preventing child sexual abuse and therefore, provides implications for the government and related educational departments. Nevertheless, a change in Singapore in the recent decade should be noticed since "abuse" is not frequently collocated with "child" – no cluster "child abuse" with

more than 2 frequencies in S2 (see Appendix 29). It may imply that the prevention of child sexual abuse and related strategy in sex education become effective in Singapore.

In addition to the performance of schools, "家庭" (family) sex education is expected to play a role in sex education properly. It could be indicated by extracts from the corpora and high frequencies of certain clusters, e.g. "parents should" ranks 3rd with frequency 28 in HK1 (see Appendix 8) and in HK2, "parents may" and "parents should" appear 7 times each (see Appendix 15). However, there are obstacles to family sex education which have been mentioned in the news articles, e.g.:

"…阻碍家庭性教育的主要原因,一方面是家长的性教育能力不足(50.60%),对性教育的教授内容和方法均缺乏认知;另一方面则与态度保守有关(26.36%)…"(quoted from 中国教育报:"调查显示 多数家长忽视子女的兴趣和情绪"on November 13th, 2014)

"...old-school corporal punishment to discipline children... such punishment can quickly escalate into child abuse, hurting the children physically as well as damaging their self-esteem..." (quoted from South China Morning Post: "Violence is not parenting" on February 24th, 2018)

Not only parents' knowledge about sex education but also their perceptions could affect the implementation of family sex education. Their conservative attitudes were clear in the news:

"...parents should be less conservative and must not avoid answering their kids' questions about sex..." (quoted from South China Morning Post: "Should repeat animal abusers be barred from owning pets?" on February 25th, 2008)



"...Hong Kong is a very conservative society and while some parents may be reluctant, they must discuss the subject with their children, so they are aware of the risks involved..." (quoted from South China Morning Post: "Differentiating legal and illegal trade" on November $3_{\rm rd}$, 2012)

Furthermore, schools might follow parents' attitudes on "sex" and skip some topics.

"...在家长对性避而不谈的情况下,不少学校也采取了对性避重就轻的态度。..." (quoted from 中国教育报: "让孩子有准备地成长" on April 23rd, 2003)

It could form a "vicious" circle with students' needs — if children can hardly get appropriate support from their families as well as the schools, they may be easier to make mistakes about sex, e.g. teenage pregnancy. While the limited ability of parents in teaching, inadequate knowledge in sex education, and their conservative attitudes remain to be solved, the schools shall take the initiative to change the curriculum as needed.

4.1.2 Different characteristics among the regions

Mainland China

One more issue on sex education in Phase 1 of Mainland China is about "爱情" (love). The importance of having "love" in sex education to meet the physical and mental needs of teenagers could be addressed:

"…调查显示:76.28%的初中生和79.47%的高中生都向往异性交往……这些数据表明,中学生对友情和爱情的体验已相当丰富。…"(quoted from 中国教育报:"'性',该如何对学生说"on May 11th, 2002)



"…当我们以成人的眼光去审视学生的生长、发育时,很可能忽视了与"性"密不可分的"爱情"。对儿童来说,这两者的神秘性实际上不分伯仲。…"(quoted from 中国教育报:"学生需要的不仅是性教育" on January 9th, 2009)

But the position it takes is against the normal cognition of Chinese society where "love" is always expressed silently not openly discussed just like "sex". Lastly, the "taboo" topic "同性 恋" (homosexuality) gains attention:

"…如果没有以组成家庭为目的的,同性的俩人在一起不能算同性恋。如果孩子间相好,彼此亲密一些,又无反常行为,那是友谊,不能叫同性恋。…"(quoted from 中国教育报:"让'非常'走向'正常'" on August 5th, 2003)

It shows an initial need for explanation in sex education while "sensitive" manner could be noticed since the concepts might not be clear to the public.

In Phase 2 of China, sexual knowledge to be conducted in sex education is also tightly related to "艾滋病" (AIDS) (see Appendix 5 - AIDS) while homosexuality comes to the concern of AIDS prevention:

"…高校男男同性恋者已成为艾滋病高发人群……大学生日益开放的性观念与同性恋行为不被社会所接受之间构成的紧张关系,导致大学生男同性恋者背负了诸多精神压力和社会歧视…" (quoted from 中国教育报: "高校防艾教育需冲破观念藩篱" on December 1st, 2015)
As suggested by the article, it could be due to the contradiction between the open attitudes of students toward sex and the society where the existence of homosexuality has long been neglected and negated in history. Finally, the focus is directed to "农村" (rural areas):



"...青少年性健康教育在老少边穷地区的农村中小学相对薄弱甚至存在空白,性健康教育教材内容陈旧,用书稀缺..."(quoted from 中国教育报:"别让青少年性教育成为真空地带"

on September 29th, 2012)

The industrialization and urbanization in the last century left villages in China less developed

place and hence, sex education is rarely discussed or even not mentioned. But the change of

the situation could be expected with the development of China.

Hong Kong SAR

The topics discussed in the two phases of Hong Kong are quite similar with the evidence of the

high word frequency in Table 3 about the topics "government", "pregnancy", "religion",

"internet" and "sexuality". Minor differences could be noticed by analysing extracts from the

corpora.

Firstly, the cluster "government should" is mentioned frequently in HK1 (i.e. 33 times) and

HK2 (i.e. 15 times) and in both corpora it ranks second (see Appendix 9 &16). The public's

expectation on the government to take efforts on improving sex education could then be noticed

and illustrated with examples from extracts:

"...the government should increase public education on sex, especially teaching women

how to protect themselves and to report to police if they were sexually molested..."

(quoted from South China Morning Post: "HK women growing in sexual confidence" on

September 12th, 2005)

The Education University of Hong Kong Library

For private study or research only.

Not for publication or further reproduction.

"...the government should incorporate real cases in sex education..." (quoted from South

China Morning Post: "Critics of new subject are so intolerant" on September 6th, 2012)

"...Another problem is the lack of a centralised database to help design a pro-child

policy... the number of child abuse cases is the highest in Yuen Long..." (quoted from

South China Morning Post: "Violence is not parenting" on February 24th, 2018)

A change on the perspectives towards what the government should do could be identified with

the evidence above - voices and suggestions from the public are becoming more purposeful

and clearer, e.g. from "increase public education on sex" in phase 1 to "incorporate real cases"

and "a centralized database" in phase 2. It also suggests that the public has developed a more

thoughtful understanding of sex education in the recent decade.

Secondly, sexuality comes to be a controversial topic among the public and for the

government's position. In the first decade, "gay" is the most frequently mentioned word by

frequency of 67 under the topic "sexuality" (see Appendix 7). By looking at the collocates,

"HIV" was the second closely collocated content word with "gay" (with the first one being

"men") (see Appendix 13). It implies the need for health education about AIDS prevention for

gay people as well as raising the public's awareness of the issue. Meanwhile, various issues

are discussed including "gay organisation", "gay rights", "gay sex", and "gay teachers" (see

Appendix 12). The increasing concern and arguments for gay rights indicate a big step further

The Education University of Hong Kong Library

For private study or research only.

Not for publication or further reproduction.

of teaching sexuality in sex education in Hong Kong. However, the government seems to have

done little for the group and hence, voices for the rights still emerge in the next decade:

"...the government must passbinding ordinances against bullying and extend basic

equality and protections to the LGBT community..." (quoted from South China Morning

Post: "Too cruel for school A campaign aims to show solidarity with the young victims of

anti-gay bullying, writes Charley Lanyon" on May 27th, 2012)

One big change in phase 2 is using the term LGBT to refer to lesbian, gay, bisexual, and

transgender people as a whole and the related issues become "LGBT sex", "LGBT identity",

"LGBT marriage", and "LGBT rights" (see Appendix 18). The reasons for open discussion

about them should include the development of society and technology which makes the western

culture expressed both online and offline have a stronger impact on people.

Another area that the government should notice about the implementation of sex education is

religion. Topics such as homosexuality are not easy to be accepted by some religious groups:

"...the issue was too sensitive, especially for schools with religious backgrounds..."

(quoted from South China Morning Post: "Teachers too busy for sex lessons" on

December 29th, 2003)

"...homosexuality has given rise to much controversy in Hong Kong. It touches upon

family, education, medical health, legal liabilities, religion and psychology..." (quoted

from South China Morning Post: "Share private hospital fees" on July 17th, 2005)

The Education University of Hong Kong Library

"...A number of schools exclude the chapter on sexual orientation, for example, for

religious reasons..." (quoted from South China Morning Post: "Sex education reform

must be part of focus on 'real life' education' on April 12th, 2014)

The phenomenon is not surprising since the ideologies of religious beliefs vary and most of

them hold a conservative attitude towards sex such as in Confucian culture. The diverse

background of students and beliefs of schools could make it difficult to make a comprehensive

guideline for sex education by the Education Bureau.

Different from the case in Mainland China, pregnancy gains more attention in Hong Kong SAR

with frequencies of 94 and 73 in two phases. The frequent clusters "pregnant girls" (i.e. 13

times) and "pregnant teenagers" (i.e. 6 times) (see Appendix 10) raise the problems of

unplanned pregnancy and lack of knowledge for self-protection in sex. Moreover, the

psychological preparation for teenagers to become mothers is not sufficient and therefore, the

situation may go tragic:

"...a 19-year-old woman who found she was pregnant attempted suicide after her

boyfriend left her..." (quoted from South China Morning Post: "Drop in number of

teenage abortions may be misleading" on May 15th, 2008)

The existence of such accidental pregnancy, as well as the irrational way to deal with it, may

suggest the lack of consideration and poor implementation of sex education for the young.

The Education University of Hong Kong Library

For private study or research only.

Not for publication or further reproduction

A noteworthy topic in the region is the use of "internet" and the issue of "pornography". Based on results from HK1, it could be identified that the word "internet" is collocated with "pornography" and "obscenity" with relatively higher frequency than other content words and with a high stat over 7 (see Appendix 11). The use of the internet seems to negatively impact on teaching students about sex:

"...obscenity on the internet had "distorted young people's perceptions on sex" and that internet access to minors should be restricted..." (quoted from South China Morning Post: "How can we better protect our rivers and streams?" on March 5th, 2008)

The rich information and little restriction online bring more challenges to than opportunities for sex education when young people cannot wisely select information to learn:

"...Hong Kong's secondary school students are watching more pornography online, but their knowledge of sex has declined..." (quoted from South China Morning Post: "More pupils watching porn, study finds" on June 13th, 2017)

Such phenomenon reveals the fact that students who lack sex education in schools could not necessarily gain proper information from other resources and therefore, emphasizes the need for internet regulation and the importance of sex education in schools.

Singapore

The concerns for sex education in the two decades in Singapore do not differ a lot to those in Hong Kong SAR which include the involvement of the government, teenage pregnancy and abortion, the need of religious groups, issues related to gender minorities, and online

pornography. Differences in the topics above also exist. For example, the cluster "ministry of" ranks the first regarding the word "ministry" in S1 but the clusters "ministry should" in S1 (see Appendix 20) and "moe should" in S2 are rarely mentioned (see Appendix 28). In that case, we might conclude that expectation on the government to further improve sex education is relatively low, which could be evidence of the success of sex education in Singapore.

One unique issue in sex education in Singapore is the abstinence approach. Suggested by the collocates of "contraception" where the frequency of "abortion" is 12 and "abstinence" is 7 (see Appendix 23), the approach should be planned for handling problems like teenage pregnancies and abortions. Different from the traditional way of using condoms for contraception, the adoption of abstinence was a controversial topic.

"...As much as she emphasises the importance of not having premarital sex, she also tells her children about contraception..." (quoted from The Strait Times: "Kids, let's talk about sex" on March 28th, 2010)

Despite students' choices on whether or not to follow the strategy, how abstinence could be introduced by government policies and schools remains unclear:

"...The choices of abstinence and the consequences of indulging in premarital sex should be shared and revealed..." (quoted from The Strait Times: "Teach sex education in context of meaningful relationships" on May 23rd, 2009)

Possible factors might be related to the mixed culture in Singapore where eastern culture may support abstinence while western culture can hardly show restriction about sex.



The last noteworthy aspect lies in phase 1: the ministry provides support that consists of both physical and emotional resources:

"...It is also encouraging that the ministry has not only introduced sex education, but has also provided content...that covers both the physical and the emotional..." (quoted from The Strait Times: "Time to talk frankly about sex" on October 18th, 2000)

"...girls below 16 who seek an abortion, were put through a structured abortion-counselling programme by trained nurses and medical social workers..." (quoted from The Strait Times: "Teenage abortions - Parents want to know" on October 23_{rd}, 2000)

Other evidence includes the word frequencies of "medical", "counselling" and "counsellors" that are 70, 47, and 46, respectively. It shows the progress that the focus of sex education in Singapore moves from young people's physical needs to respect and care for their mental health. The important role of counselling services could then demonstrate the comprehensive understanding of sex education of the Singaporean government.

4.2 RQ2: Factors Related to the Diachronic Change

In this section, the main diachronic changes will be first summarized based on the analysis in section 4.1 and keyword comparison from AntConc. Selected results of keyword lists are shown in Table 4 below.

Table 4: Selected Results of "Keyword List"

Rank	Keyness	Keyword		
Mainland China: (see full results in Appendix 32)				
1	+149.28	侵害		
4	+102.35	幼儿		
7	+80.22	案件		
8	+65.89	幼儿园		
Hong Kong SAR: (see full results in Appendix 33)				
3	+108.81	lgbt		
6	+65.59	porn		
36	+21.97	transgender		
Singapore: (see full results in Appendix 34)				
3	+85	porn		
44	+24.43	cyber		
57	+21.22	pornography		
59	-143.52	aids		
60	-103.12	hiv		

For Mainland China, high keyness of phrases such as "侵害" (assault/abuse), "幼儿" (kids), "案件" (legal case), and "幼儿园" (kindergarten) suggests the major diachronic change be that more importance is attached to the issue of childhood sexual assault and legal protections for children and teenagers. Factors pushing the changes should include at least the social situation and the development of law. A growing number of child sexual abuse was shown in media where crimes committed by acquaintance took a high proportion (He & Lin, 2017). Such increasing cases indicate the ineffectiveness of sex education for young kids while efforts of the government could be seen. Concluded by Wen (2018), the study of law in the 21 century had experienced stages from preventing female from sexual abuse to preventing child sexual abuse. Policies such as "《中国儿童发展纲要 (2011-2020) 》" (the program for the development of Chinese children) in 2011 and "《关于做好少年儿童遭受性侵工作的意见》" (opinions on doing a good job of child sexual abuse) in 2013 were issued to protect sex rights of teenagers and facilitate the prevention of sexual assault. It is good that the Chinese government steps forward to see the need for child sex education. However, the increasing discussion could also be the evidence that the issue continues to exist at a level that the public is not satisfied with. The concern expressed on the issue should then raise awareness of the public in society as well as the government.

For Hong Kong SAR and Singapore, "porn" becomes a keyword for changes in the two decades. The popularity is inseparable from the development of the internet. Internet brings not only opportunities for people to get access to various information such as gender minorities but also challenges for sex education. For example, how to ensure the information processed by children are "healthy" is a question for both parents and governments. Moreover, "LGBT" is noteworthy for changes in Hong Kong. The international influence of the trend might account for the raise of the fact that a few topics come to the discussion in the public media such as "LGBT rights". Such open discussion leads attention to be paid by the public (i.e. readers of the newspaper) and changes to be made by the government. Lastly, news reports in Singapore gradually switch from "AIDS" and "HIV" to "STD" and "STI"; this change in terminology is probably related to the development of Medicare in Singapore as well as a better understanding of STDs as the need to prevent STDs other than AIDS was concerned. Also, the strategy of changing the terms could raise the public's awareness of contraception/abstinence when the danger of unplanned sex is not limited to AIDS/HIV.

4.3 RQ3: Factors Related to the Regional Differences

Based on the analysis in section 4.1, major differences across the regions/countries could be concluded as a) the involvement of and expectations on the government; b) the attitudes toward LGBT issues; c) the influence from religions and; d) the position of pornography in sex

education. Several factors are listed below with a discussion on how they may take effect on

the above differences.

Firstly, the demographic structures are different across the three regions. Relating to Hong

Kong's colonial history, school education in Hong Kong continued to be influenced by major

religious groups. For example, many elite secondary schools are affiliated to Christianity,

which viewed non-normative sexuality and gender expression as "deviant and socially

unacceptable" (Suen, 2015). Similarly, the sizeable Catholic and Muslim population in

Singapore also implicated the implementation of sex education in this region (Lee, 2016).

Secondly, political influence differs in the construction of societies. The Chinese government

takes a policy of sinicizing racial and ethnic minorities, which helps to group the Chinese

altogether. Hence, the attitude towards sex education is "united" (i.e. needs of ethnic and

gender minorities were not well noted) by the conservative government. As for Hong Kong

SAR, the relationship between the Hong Kong government and the Chinese government might

be a cause. It was stated that a closer relationship would make the people in Hong Kong more

mobilised and resistant (Lee, 2016). People would not welcome policies that follow the idea of

the Chinese government but turn to seek more "advanced" views on sex education, e.g. gay

marriage. However, PAP dominated Singaporean government takes a relatively mild and

The Education University of Hong Kong Library

For private study or research only.

Not for publication or further reproduction.

liberal attitude towards social control. The careful attitudes and the principle of coexistence could contribute to the obstruction of the promotion of LGBT rights based on views from the religious community.

Thirdly, the culture of the three places is an important factor regarding the regional changes. We may see that the development of sex education in Mainland China differed a lot from the other two places in that the gender-related issues were mentioned in higher frequency and more depth. In Hong Kong SAR and Singapore, activists could encounter more conflicts because the culture is mixed with the west. The colonial legacy in their culture and their geopolitical relationship with Mainland China can greatly affect social attitudes towards sex in Westernised-Confucian societies. However, the fact that Hong Kong SAR embodies many Chinese traditional values, e.g. heterosexuality is the inherent sexuality, shows the great impact of Confucian culture. For example, heteronormative culture fostered in families would bring enormous social pressure on family members who encounter struggles about gender identities (Kong, 2012; Suen, 2015). Another evidence can be that spreading pornography is officially illegal in Mainland China but the position in Hong Kong SAR and Singapore is more ambiguous. The prohibition of the correlated porn industry by the Chinese government does not only express a conservative attitude on "sex" but also limit the freedom for the public to access knowledge about sex from another perspective.

5. Limitations

In this research, the newspapers of Hong Kong SAR and Singapore are not education-oriented because there are no such newspapers that meet the criteria. Also, the sizes of the corpora for Mainland China are relatively small compared with those for the other two places. To increase credibility, future researches may try to avoid the above limitations. Moreover, since the study adopts a bottom-up approach to generate the topics about sex education and do further analysis, an alternative way is to find keywords from previous literature and search for more information as a top-down process.

6. Conclusion

Sex education has received more and more attention in the 21st century. However, there is not much research that draws on newspapers as the data source to examine social attitudes and values towards sex education and that compares both the diachronic changes and regional differences. In this paper, we have looked at the portrayal of sex education based on corpus analysis and critical discourse analysis in three regions/countries in Asia, i.e. Mainland China, Hong Kong SAR, and Singapore. Six sub-corpora were built by using articles from newspapers

that are education-oriented or include education columns for analysing the characteristics in each period (i.e. 2000~2009 and 2010~2019) and each place. The study has found that shared concerns about AIDS prevention, sexual abuse (especially among children), and family sex education. Discussion topics about sex education varied over time, e.g. the increasing focus on child sexual abuse in Mainland China and pornography in Hong Kong SAR and Singapore. Similarly, regional differences could be noticed such as homosexuality was not concerned much in Mainland China while various related topics (e.g. "LGBT marriage") were discussed in the other two places. Factors explaining the diachronic changes and regional differences mainly are discussed from historical, social, cultural, and political perspectives with regard to DHA to CDA. For instance, the experience of colonialism led to increasing attention on the needs of religious communities, e.g. in issues about gender minorities.

Though the results show positive changes in sex education during the years, more remains to be done with efforts made by the government, families, and educators. Based on the findings in the research, policymakers should take consideration of the social development (e.g. the influence of the internet), the diverse needs of different groups (e.g. religious groups), and the social situation (e.g. public's knowledge) when making policies. Meanwhile, educators should try to design a comprehensive curriculum including topics about gender diversity and generate a mutual understanding of sex education with parents for cooperation. Future studies may focus

on how internet (e.g. porn sites) may affect students in Asia on their understanding of topics in sex education and how social changes could influence policymaking in sex education such as laws about child sexual abuse.

7. References

*Aresu, A. (2009). Sex education in modern and contemporary China: Interrupted debates across the last century. *International Journal of Educational Development*, 29(5), 532-541. doi:10.1016/j.ijedudev.2009.04.010

Baker, P. (2006). Using Corpora in Discourse Analysis. London, UK: Continuum.

*Baker, P., Gabrielatos, C., KhosraviNik, M., Krzyżanowski, M., McEnery, T., & Wodak, R. (2008). A useful methodological synergy? Combining critical discourse analysis and corpus linguistics to examine discourses of refugees and asylum seekers in the UK press. *Discourse & Society*, 19(3), 273–306. doi:10.1177/0957926508088962

*Bednarek, M., & Caple, H. (2014). Why do news values matter? Towards a new methodological framework for analysing news discourse in critical discourse analysis and beyond. *Discourse & Society*, 25(2), 135–158. doi:10.1177/0957926513516041

Boynton, P. M., & Callaghan W. (2006). Understanding media coverage of sex: A practical discussion paper for sexologists and journalists. *Sexual & Relationship Therapy*, 21(3), 333–346.



*Carr, G., & Bednarek, M. (2019). Beyond risk and safety? Identifying shifts in sex education advice targeted at young women. *Discourse & Society*. doi:10.1177/0957926519828029

Centre for Communication and Public Opinion Survey (2016). Shimin Dui Chuanmei Gongxinli De Pingfen [Public ratings of credibility of the media]. Hong Kong: The Chinese University of Hong Kong. Retrieved from http://www.com.cuhk.edu.hk/ccpos/b5/research/Credibility_Survey%20Results_2016_C HI.pdf

Chong, T. (2011). Filling the moral void: The Christian right in Singapore. *Journal of Contemporary Asia*, 41, 566–583. doi:10.1080/00472336.2011.610614

Clarke, J. (2009). Women's work, worry and fear: The portrayal of sexuality and sexual health in US magazines for teenage and middle-aged women, 2000-2007. *Culture, Health & Sexuality*, 11(4), 415–429. doi:10.1080/13691050902780776

Department of Health (2014). *Bridge*, 65. Retrieved from: http://www.studenthealth.gov.hk/english/newsletters/files/bridge65.pdf



- Fairclough, N. (2016). A dialectal-relational approach to critical discourse analysis in social research. In R. Wodak, & M. Meyer (Eds.), *Methods of Critical Discourse Studies* (pp. 86-108). Los Angeles, Calif: Sage Publications.
- He, T. & Lin, J. (2017). Three dimensional construction of the legislation of sexual assault juveniles in China. *Issues on Juvenile Crimes and Delinquency*, 000(001), 60-69. doi:10.3969/j.issn.1006-1509.2017.01.009
- Koh, A. & Chong, T. (2014). Education in the global city: the manufacturing of education in Singapore. *Discourse: Studies in the Cultural Politics of Education*, 35(5), 625-636. doi: 10.1080/01596306.2014.931112
- Kong, T. S. K. (2012). A fading tongzhi heterotopia: Hong Kong older gay men's use of spaces. *Sexualities*, 15(8), 896–916. doi: 10.1177/1363460712459308
- Lee, P. (2016). LGBT rights versus Asian values: De/re-constructing the universality of human rights. *The International Journal of Human Rights*, 20(7), 978-992. doi:10.1080/13642987.2016.1192537

Liang, J. Y., Tan, S. & O'Halloran, K. (2017). Representing sexuality and morality in sex education picture books in contemporary China. *Social Semiotics*, 27(1), 107-126. doi:10.1080/10350330.2016.1161117

Liew, W. M. (2014). Sex (education) in the city: Singapore's sexuality education curriculum.

*Discourse: Studies in the Cultural Politics of Education, 35(5), 705-717. doi: 10.1080/01596306.2014.931114

Mautner, G. (2009). Corpora and critical discourse analysis. In P. Baker, *Contemporary Corpus Linguistics* (pp. 32-46). London, UK: Contemporary Corpus Linguistics.

Ministry of Education (2019). Scope and teaching approach of sexuality education in schools.

Retrieved from https://www.moe.gov.sg/education/programmes/social-and-emotional-learning/sexuality-education/scope-and-teaching-approach-of-sexuality-education-in-schools

Legislative Council Secretariat (2018). *Information note – Sexuality education*. Retrieved from https://www.legco.gov.hk/research-publications/english/1718in03-sexuality-education-20180109-e.pdf

Reisigl, M. & Wodak, R. (2016). The discourse-historical approach (DHA). In R. Wodak, & M. Meyer (Eds.), *Methods of Critical Discourse Studies* (pp. 23-61). Los Angeles, Calif: Sage Publications.

Rothmüller, B. (2018). The imagined community of sexually liberal citizens: Educational reforms since the 1970s. *Discourse: Studies in the Cultural Politics of Education*, 39(3), 361-376. doi:10.1080/01596306.2016.1263793

Salama, A. H.Y. (2011). Ideological collocation and the recontextualization of Wahhabi-Saudi

Islam post-9/11: A synergy of corpus linguistics and critical discourse analysis. *Discourse*& Society, 22(3), 315-342. doi:10.1177/0957926510395445

Singapore Press Holdings (2019). Daily average newspapers circulation. Retrieved from https://www.sph.com.sg/system/misc/annualreport/2019/SPH_AR2019_Daily_Average.



Suen, Y. T. (2015). Methodological reflections on researching lesbian, gay, bisexual and transgender university students in Hong Kong: To what extent are they vulnerable interview subjects?. *Higher Education Research & Development*, 34(4), 722-734. doi:10.1080/07294360.2015.1051009

The Family Planning Association of Hong Kong (2017). *Press Releases – Report on Youth Sexuality Study 2016*. Retrieved from: https://www.famplan.org.hk/en/mediacentre/pressreleases/detail/fpahk-report-on-youth-sexuality-study

The United Nations Educational, Scientific and Cultural Organization (UNESCO).

(2018). Implementation of sexuality education in middle schools in China. Beijing.

Retrieved from https://china.unfpa.org/sites/default/files/pub-pdf/Implementation%20of%20CSE%20in%20middle%20schools%20report_final_eng.p

United Nations entities (2015). Ending violence and discrimination against lesbian, gay, bisexual, transgender and intersex people. Retrieved from

https://www.ohchr.org/Documents/Issues/Discrimination/Joint_LGBTI_Statement_EN G.PDF

Van Dijk, T.A. (2016). Critical discourse studies: a sociocognitive approach. In R. Wodak, & M. Meyer (Eds.), *Methods of Critical Discourse Studies* (pp. 62-85). Los Angeles, Calif: Sage Publications.

Wen, H. (2018). The appeal to law protection of sex right of juveniles. *Journal of Chinese Youth Social Science*, 4, 126-133. doi:10.16034/j.cnki.10-1318/c.2018.04.021

*Wilkinson, M. (2019). 'Bisexual oysters': A diachronic corpus-based critical discourse analysis of bisexual representation in *The Times* between 1957 and 2017. *Discourse & Communication*, 13(2), 249–267. doi:10.1177/1750481318817624

Williamson, K., Given, L. M., & Scifleet, P. (2017). Qualitative data analysis. In K. Williamson & G. Johanson (Eds), *Research Methods: Information, Systems, and Contexts* (pp. 453-476). Oxford: Chandos Publishing.

Xiao, Z., Mehrotra, P., & Zimmerman, R. (2011). Sexual revolution in China: Implications for Chinese women and society. *AIDS Care*, 23(sup1), 105–112. doi:10.1080/09540121.2010.532537

Zhang, L., Li, X., & Shah, I. H. (2007). Where do Chinese adolescents obtain knowledge of sex? Implications for sex education in China. *Health Education*, 107(4), 351-363. doi:10.1108/09654280710759269

8. Appendix

Appendix no.	Content
1.	Selection Criteria for Corpus Building
2.	Selected "Word List" of C1
3.	Selected "Clusters" of C1 - "AIDS"
4.	Selected "Collocates" of C1 - "sexual assault"
5.	Selected "Word List" of C2
6.	Selected "Collocates" of C2 - "assault"
7.	Selected "Word List" of HK1
8.	Selected "Clusters" of HK1 – "parents"
9.	Selected "Clusters" of HK1 – "government"
10.	Selected "Clusters" of HK1 – "pregnant"
11.	Selected "Collocates" of HK1 – "internet"
12.	Selected "Concordance" of HK1 – "gay"
13.	Selected "Collocates" and "Concordance" of HK1 – "gay"
14.	Selected "Word List" of HK2
15.	Selected "Clusters" of HK2 – "parents"
16.	Selected "Clusters" of HK2 – "government"
17.	Selected "Clusters" of HK2 – "abuse"
18.	Selected "Clusters" of HK2 – "lgbt"
19.	Selected "Word List" of S1
20.	Selected "Clusters" of S1 – "ministry"
21.	Selected "Concordance" of S1 – "transmitted"
22.	Selected "Clusters" of S1 – "abuse"
23.	Selected "Collocates" of S1 – "contraception"
24.	Selected "Clusters" of S1 – "homosexual"
25.	Selected "Collocates" of S1 – "internet"
26.	Selected "Clusters" of S1 – "porn"
27.	Selected "Word List" of S2
28.	Selected "Clusters" of S2 – "moe"
29.	Selected "Clusters" of S2 – "abuse"
30.	Selected "Clusters" of S2 – "gender"
31.	Selected "Collocates" of S2 – "internet"
32.	"Keyword List" of C2 with C1 as the Reference Corpus
33.	"Keyword List" of HK2 with HK1 as the Reference Corpus
34.	"Keyword List" of S2 with S1 as the Reference Corpus

Appendix 1: Selection Criteria for Corpus Building

	Selection Criteria in Factiva				
Sub-corpora	HK1	HK2	S1	S2	
Region	Hong	Kong	Singa	apore	
Source	South China Mon	rning Post (Hong	The Strait Tim	es (Singapore)	
	Ko	ng)			
Search form	The exact phrase: "sex education"				
Date	1/1/2000-	1/1/2010-	1/1/2000-	1/1/2010-	
	31/12/2009	31/12/2019	31/12/2009	31/12/2019	
Duplicates	Similar				
Language		Eng	glish		

Selection Criteria in CNKI				
Sub-corpora	C 1	C2		
Newspapers	a. 中国教育报(Chir	a. 中国教育报(China Education Daily)		
(报纸名称)	b. 中国教师报(China Teacher's Paper)			
	c. 江苏教育报(Jiang	su Education Daily)		
	d. 天津教育报(Tianjin Education Daily)			
Search from	全文:"性教育"(full text: "sex education")			
Date (报纸时间)	01/01/2000-31/12/2009	01/01/2010-31/12/2019		

Appendix 2: Selected "Word List" of C1

School

Rank	Freq	Word	Meaning
16	331	学校	school
12	402	学生	student
40	172	家长	parents
43	170	老师	teacher
50	146	教师	teacher

Schools

Rank	Freq	Word	Meaning
16	331	学校	school
97	80	大学	university
208	42	中学	middle school
266	35	高中	high school
268	34	初中	junior high school
300	31	中小学	middle and primary school
336	29	小学	primary school
378	26	高校	colleges and universities
669	14	幼儿园	kindergarten

Sexual abuse

Rank	Freq	Word	Meaning
137	64	性侵犯	sexual abuse
170	48	困惑	puzzled
242	37	保护	protect
319	30	伤害	hurt
333	29	创伤	hurt
380	25	侵犯	violate
437	21	困扰	perplex
443	21	敏感	sensitive
468	20	尴尬	embarrassed

AIDS

Rank	Freq	Word	Meaning
54	141	艾滋病	AIDS

711	13	性病	sexually transmitted diseases (STD)
763	12	性传播	sexual transmission

Family

Rank	Freq	Word	Meaning
40	172	家长	parents
67	111	父母	parents
94	84	家庭	family
155	56	妈妈	mother
221	40	女儿	daughter
295	32	母亲	mother
393	24	儿子	son
533	18	爸爸	father
580	16	家庭教育	family education

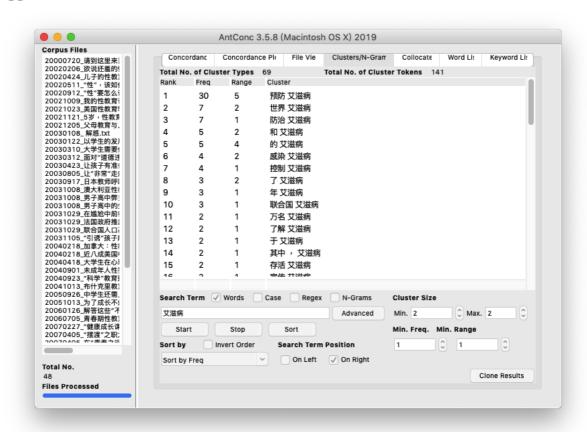
Love

Rank	Freq	Word	Meaning
205	43	爱情	love
224	40	爱	love
426	22	恋爱	be in love
624	15	早恋	puppy love

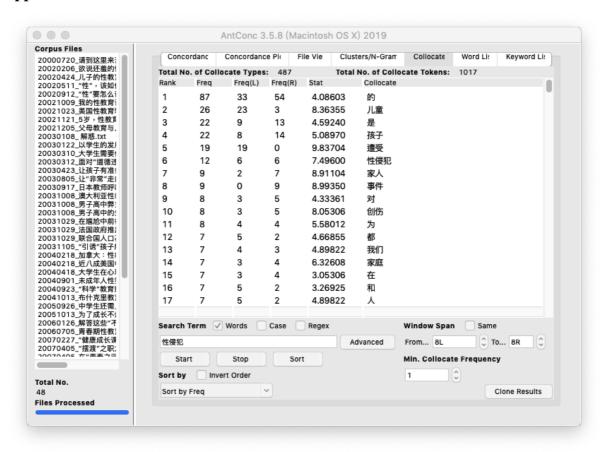
Homosexuality

Rank	Freq	Word	Meaning
464	20	同性恋	homosexuality

Appendix 3: Selected "Clusters" of C1 - "AIDS"



Appendix 4: Selected "Collocates" of C1 - "sexual assault"



Appendix 5: Selected "Word List" of C2

School

Rank	Freq	Word	Meaning
12	216	学校	school
11	253	家长	parents
10	273	学生	student
16	172	教师	teacher
38	88	老师	teacher

Schools

Rank	Freq	Word	Meaning
12	216	学校	school
80	57	幼儿园	kindergarten
145	33	中小学	middle and primary school
170	29	小学	primary school
229	23	大学	university
235	22	中学	middle school
339	17	高校	colleges and universities

Family

	T		
Rank	Freq	Word	Meaning
37	88	父母	parents
56	72	家庭	family
86	52	子女	children
187	27	妈妈	mother
218	24	家庭教育	family education
351	16	父亲	father
434	13	爸爸	Father

Sexual abuse

Rank	Freq	Word	Meaning
31	97	侵害	violate
41	84	保护	protect
42	83	安全	safety
83	54	案件	legal case
155	32	猥褻	obscenity

255	21	案例	case
274	20	性侵	sexual assault
334	17	犯罪	commit a crime
344	16	困惑	puzzled
422	13	性骚扰	sexual harassment

AIDS

Rank	Freq	Word	Meaning
103	47	艾滋病	AIDS
225	24	防艾	against AIDS

Homosexuality

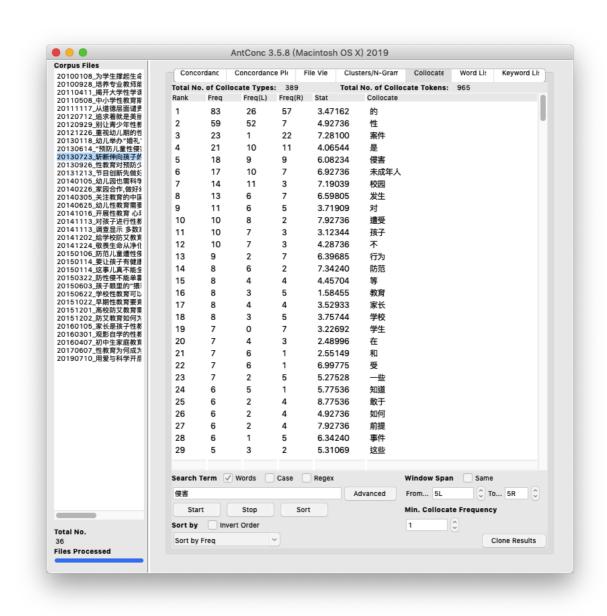
Rank	Freq	Word	Meaning
860	6	同性恋	homosexuality

Rural areas

Rank	Freq	Word	Meaning
384	14	农村	country



Appendix 6: Selected "Collocates" of C2 - "assault"



Appendix 7: Selected "Word List" of HK1

Schools

Rank	Freq	Word
44	585	students
48	531	school
51	515	schools
85	312	teachers
105/882	223/29	university/universities
222	104	student
From "Concordance"	99	secondary school(s)
357	66	teacher
From "Concordance"	36	primary school(s)
From "Concordance"	23	kindergarten(s)

Family

Rank	Freq	Word
50	522	children
64	423	parents
99	251	family
175	132	mother
331	72	maternal

Government

Rank	Freq	Word
78	372	government
173	135	rights
187	124	police
279	85	policy
603	40	legal

AIDS

Rank	Freq	Word
98	257	aids
138	167	hiv
288	82	condoms
485	49	condom

Abuse

Rank	Freq	Word
174	134	abuse
887	28	abusers
982	25	harassment

Pregnancy

Rank	Freq	Word
243	94	pregnant
251	90	abortions
253	90	pregnancy
288	82	condoms
290	82	pregnancies
337	70	abortion
344	68	marriage
485	49	condom

Sexuality

Rank	Freq	Word
323	73	sexuality
349	67	gay
931	27	homosexuality
1364	17	homosexual

Internet

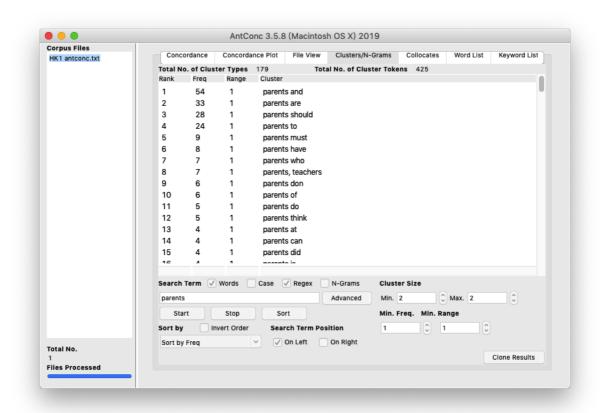
Rank	Freq	Word
146	160	internet
583	41	pornography
936	27	pornographic
1084	23	porn

Religion

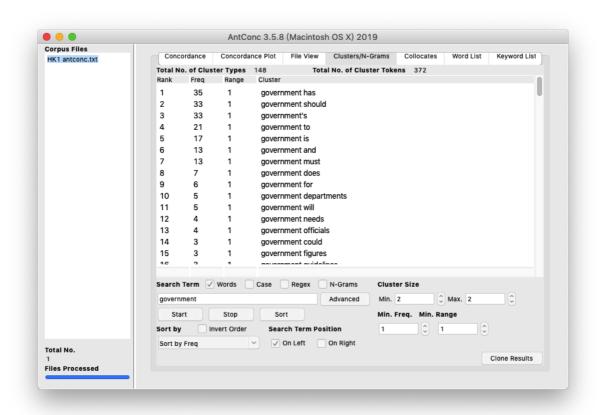
Rank	Freq	Word
405	57	religious
408	56	catholic
1385	17	religion



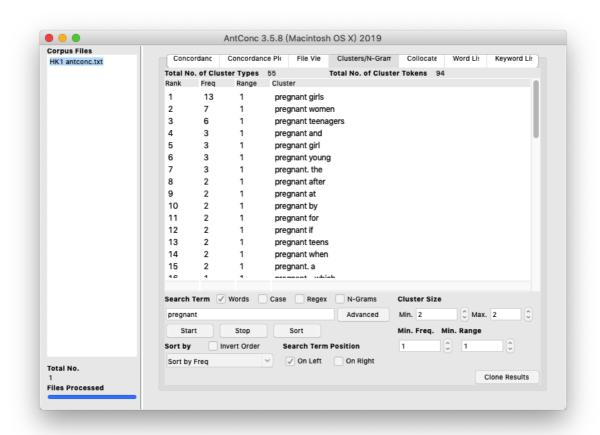
Appendix 8: Selected "Clusters" of HK1 - "parents"



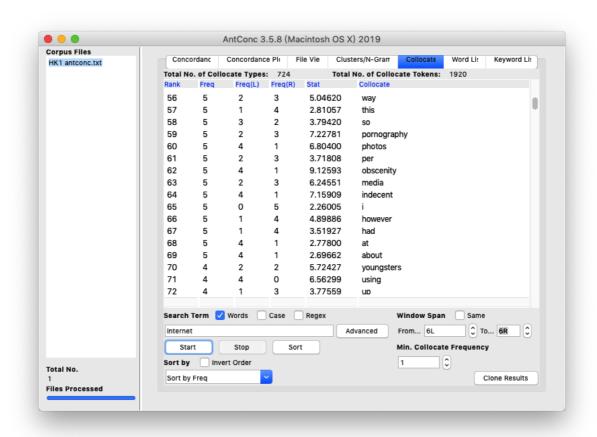
Appendix 9: Selected "Clusters" of HK1 - "government"



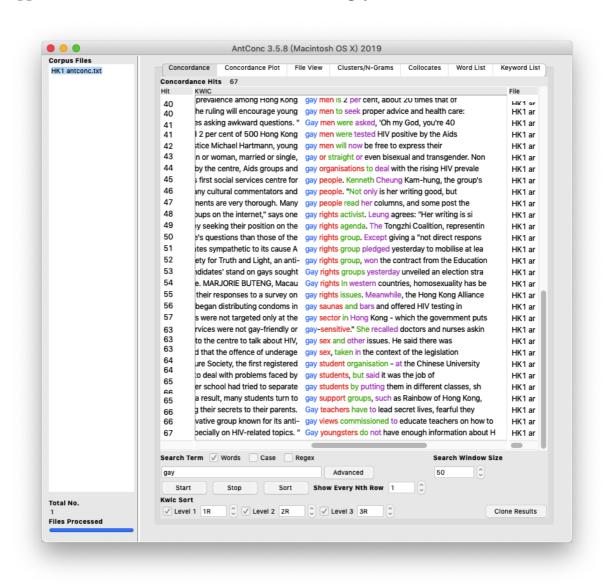
Appendix 10: Selected "Clusters" of HK1 - "pregnant"



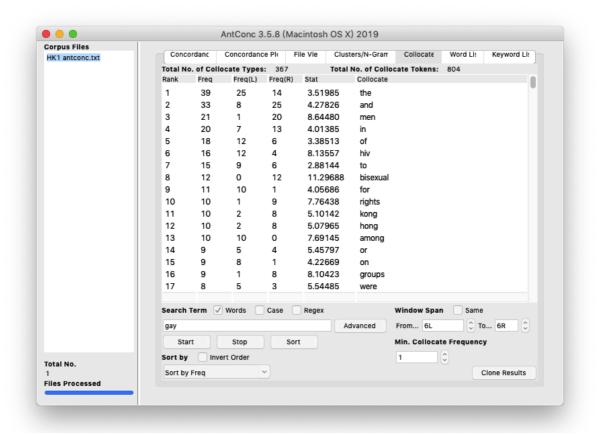
Appendix 11: Selected "Collocates" of HK1 - "internet"

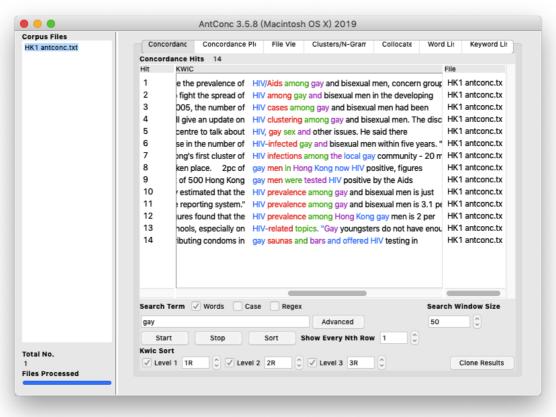


Appendix 12: Selected "Concordance" of HK1 - "gay"



Appendix 13: Selected "Collocates" and "Concordance" of HK1 - "gay"





Appendix 14: Selected "Word List" of HK2

School

Rank	Freq	Word
62	216	school
69	200	schools
79	178	students
132/485	91/26	university/universities
125	95	teachers
From "Concordance"	55	secondary school(s)
338	36	student
From "Concordance"	22	primary school(s)
736	18	teacher
From "Concordance"	3	kindergarten(s)

Family

Rank	Freq	Word
50	255	children
72	191	parents
109	113	mother
157	75	families
332	36	father
343	35	daughter
384	32	mothers

Government

Rank	Freq	Word
78	178	government
167	71	police
215	56	law
234	51	legal
292	40	rights
347	35	illegal
478	26	policy

AIDS

Rank	Fr	ea Wor	 rd
1\u111\	11		ı u

207	57	aids
237	50	hiv

Pregnancy

Rank	Freq	Word
163	73	pregnancy
201	60	pregnant
279	42	abortion
300	39	pregnancies
327	26	abortions

Abuse

Rank	Freq	Word
183	64	abuse
306	38	bullying
449	27	assault

Sexuality

Rank	Freq	Word
231	52	sexuality
233	51	gender
240	50	lgbt
251	48	gay

Pornography

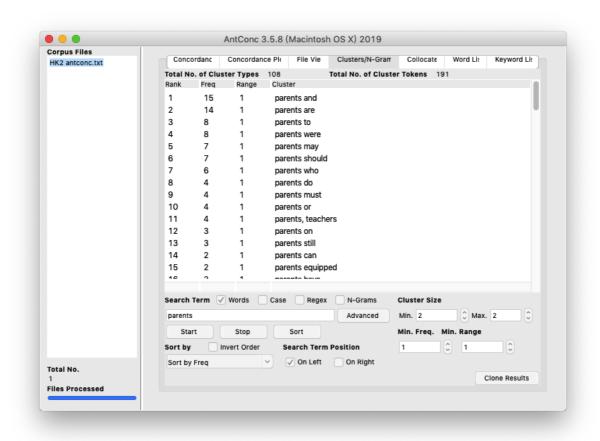
Rank	Freq	Word
174	69	porn
318	37	internet
352	35	pornography
727	18	pornographic

Religion

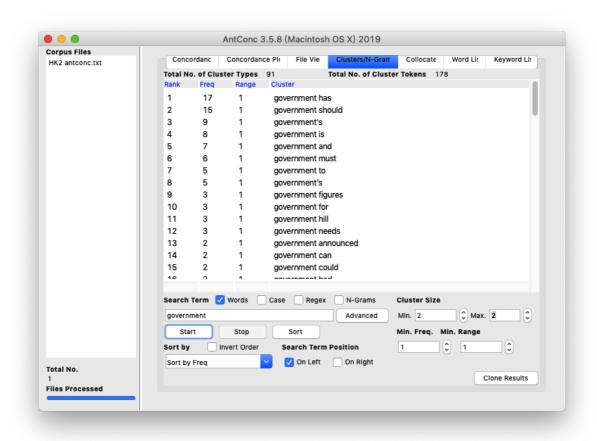
Rank	Freq	Word
555	23	religious



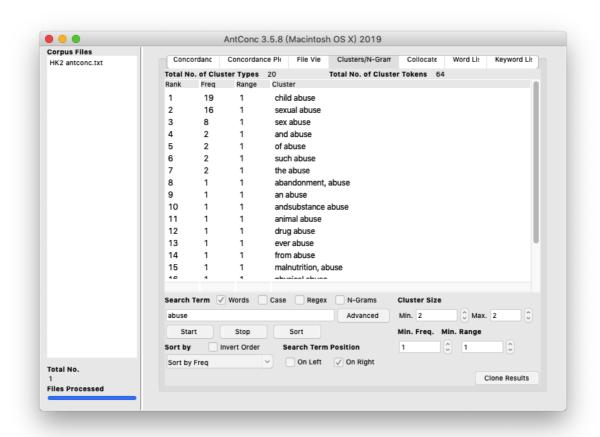
Appendix 15: Selected "Clusters" of HK2 - "parents"



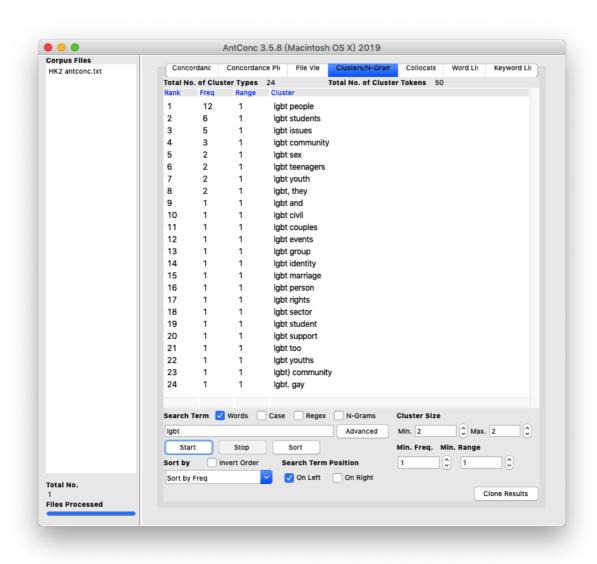
Appendix 16: Selected "Clusters" of HK2 - "government"



Appendix 17: Selected "Clusters" of HK2 - "abuse"



Appendix 18: Selected "Clusters" of HK2 - "lgbt"



Appendix 19: Selected "Word List" of S1

School

Rank	Freq	Word
66	359	schools
79	305	school
108	221	students
152	151	teachers
223	95	student
332	66	teacher
From "Concordance"	52	secondary school(s)
421	51	university
From "Concordance"	27	primary school(s)
From "Concordance"	3	kindergarten(s)

Family

Rank	Freq	Word
40	585	parents
45	513	children
87	266	family
115	198	child
226	93	mother
464	46	families
564	39	father
645	33	daughter
646	33	daughters
656	33	parenthood
737	29	mothers
864	25	parental
930	23	father

Government

Rank	Freq	Word
142	165	ministry
222	95	government
244	88	moe
260	82	approach

412	52	minister
-----	----	----------

STD

Rank	Freq	Word
72	348	sexually
141	165	aids
148	158	hiv
204	102	transmitted
268	80	diseases
366	59	infections
408	52	disease
594	37	infection

Abortion

Rank	Freq	Word
155	148	abortion
180	129	condoms
205	101	contraception
229	92	condom
240	88	abortions
256	84	pregnancy
264	81	pregnant
286	76	pregnancies
487	44	contraceptives

Abstinence

Rank	Freq	Word
137	170	abstinence
873	27	virginity

Religion

Rank	Freq	Word
181	129	religious
507	43	religion
624	35	muslim
730	29	christian



Sexuality

Rank	Freq	Word
100	239	sexuality
198	104	homosexuality
489	44	gay
636	34	homosexual

Medicine

Rank	Freq	Word
310	70	medical
451	47	counselling
462	46	counsellors
474	45	emotional
524	41	consultant
733	29	doctors
790	27	hospital
867	25	psychiatrist

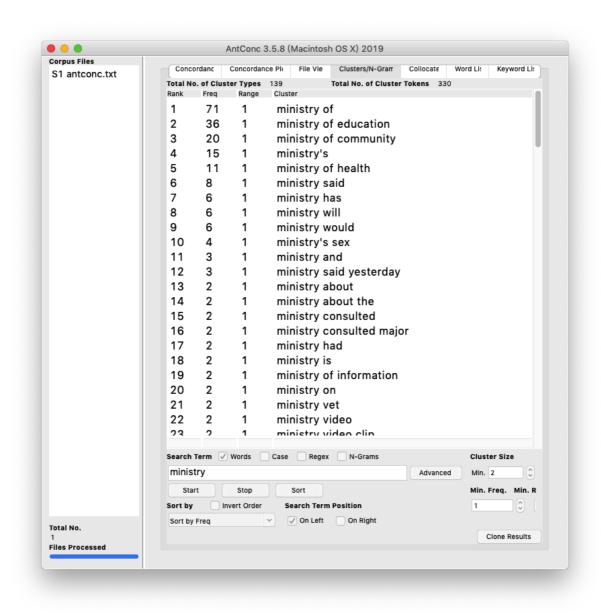
Abuse

Rank	Freq	Word
283	77	abuse
647	33	death

Internet

Rank	Freq	Word
183	127	internet
216	97	online
235	90	media
550	40	pornography
657	33	porn

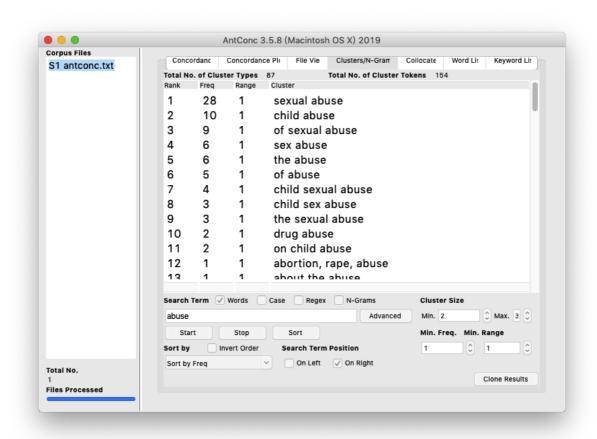
Appendix 20: Selected "Clusters" of S1 – "ministry"



Appendix 21: Selected "Concordance" of S1 – "transmitted"

graphits 102 wic sign The number of sexually ed topics such as sexually ncy, abortion and sexually n diagnosed with sexually rding to the main sexually	transmitted infections among teenagers last year transmitted infections and the consequences of processing transmitted infections, as well as the anecdotal extransmitted infections at the DSC Clinic in Kelanta
sg The number of sexually ed topics such as sexually ncy, abortion and sexually n diagnosed with sexually	transmitted infections and the consequences of parameter transmitted infections, as well as the anecdotal extransmitted infections at the DSC Clinic in Kelanta
ed topics such as sexually ncy, abortion and sexually n diagnosed with sexually	transmitted infections and the consequences of parameter transmitted infections, as well as the anecdotal extransmitted infections at the DSC Clinic in Kelanta
ncy, abortion and sexually n diagnosed with sexually	transmitted infections, as well as the anecdotal entransmitted infections at the DSC Clinic in Kelanta
n diagnosed with sexually	transmitted infections at the DSC Clinic in Kelanta
rding to the main sexually	
	transmitted infections clinic run by the governme
e Department of Sexually-	Transmitted Infections Control (DSC) clinic, told
ncidence of STIs (sexually	transmitted infections)/HIV among youths, becau-
• • • • • • • • • • • • • • • • • • • •	transmitted infections; HIV and contraceptives; he
	transmitted infections in 2002, it hit 657 in the fi
_	transmitted infections like gonorrhoea as well as
	transmitted infections or getting pregnant. The Si
	transmitted infections, so that teenagers can make
-	transmitted infections (STI) among teenage girls.
eed to acquire on sexually	transmitted infections (STI), if such diseases are
issue THE rise in sexually	transmitted infections (STI) among teenagers call
ming to read that sexually	transmitted infections (STI) are increasing at a fu
of HIV and other sexually-	transmitted infections (STI). When used correctly
nd genital warts. Sexually	transmitted infections (STIs) have been on the ris
in the number of sexually	transmitted infections (STIs) and HIV cases. Last
eenagers getting sexually	transmitted infections (STIs) and HIV has risen in
and Aids to other sexually	transmitted infections (STIs), to contraception as
te information on sexually	transmitted infections (STIs) and HIV, for example
nformation about sexually	transmitted infections (STIs)? Teens need to know
found out about sexually	transmitted infections (STIs). That was when a fri
re, the number of sexually	transmitted infections (STIs) among teenagers las
f youngsters with sexually	transmitted infections (STIs) has almost tripled in
sing incidence of sexually	transmitted infections (STIs) in Britain and the Ne
of teenagers with sexually-	transmitted infections (STIs) to more than double
partner is free of sexually	transmitted infections (STIs). Alicia said: 'You dor
me the victims of sexually	transmitted infections, there really is no-one else
pregnancies and sexually	transmitted infections. We wholeheartedly agree
of HIV and other sexually	transmitted infections'. We acknowledge that con
	ming to read that sexually of HIV and other sexually and genital warts. Sexually in the number of sexually eenagers getting sexually and Aids to other sexually to information on sexually found out about sexually found out about sexually e, the number of sexually youngsters with sexually sing incidence of sexually feenagers with sexually partner is free of sexually me the victims of sexually pregnancies and sexually

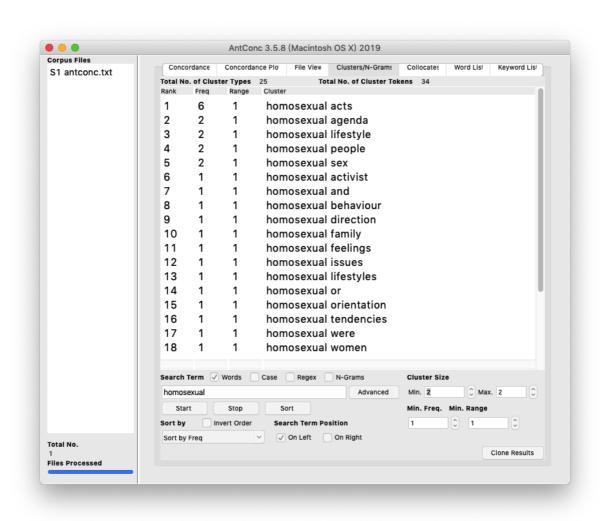
Appendix 22: Selected "Clusters" of S1 – "abuse"



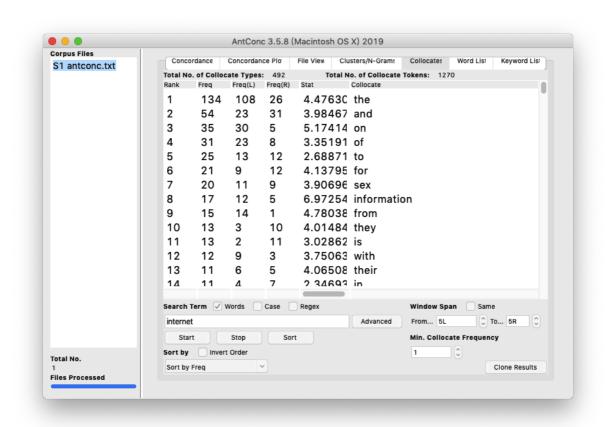
Appendix 23: Selected "Collocates" of S1 – "contraception"

• •					Collocates Results 1
		cate Types			No. of Collocate Tokens: 1010
tank 13	Freq 12	Freq(L)	Freq(R)	7 13021	abortion
14	11	7	4	6.87429	
15	11	9	2	3.91607	
16	11	5	6	4.07715	
17	10	3	7	3.81807	
18	9	4	5	5.60270	
19	8	4	4	3.80196	have
20	8	3	5	4.87206	also
21	7	7	0	6.56206	teach
22	7	1	6	2.83499	it
23	7	3	4	6.15267	abstinence
24	6	1	5	3.22984	they
25	6	4	2	3.52109	their
26	6	2	4	8.13021	stds
27	6	3	3	2.94842	s
28	6	4	2	9.33967	methods
29	6	2	4	5.17476	may
30	6	2	4	7.01774	diseases
31	6	3	3	2.99315	are
32	5	0	5	3.79355	will
33	5	2	3	3.61515	we
34	5	1	4	6.40421	transmitted
35	5	4	1	6.58478	teaching
36	5	4	1	6.79123	since
37	5	1	4	5.34871	sexually
38	5	3	2	4.58879	schools
39	5	2	3	4.89672	our
10	5	1	1	E E27/17	information

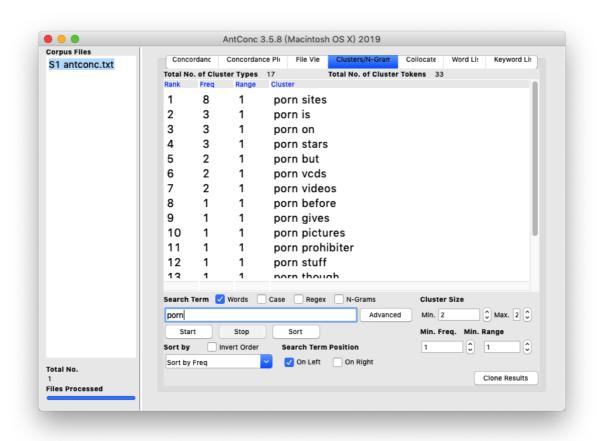
Appendix 24: Selected "Clusters" of S1 - "homosexual"



Appendix 25: Selected "Collocates" of S1 - "internet"



Appendix 26: Selected "Clusters" of S1 - "porn"



Appendix 27: Selected "Word List" of S2

School

Rank	Freq	Word
75	184	school
79	174	schools
89	156	students
144/544	87/24	university/universities
227	58	student
250	53	teachers
458	28	college
468	28	teacher
From "Concordance"	18	secondary school(s)
From "Concordance"	16	primary school(s)
From "Concordance"	8	kindergarten(s)

Family

Rank	Freq	Word
36	391	children
43	328	parents
78	176	family
111	115	home
115	111	child
133	98	mother
259	51	son
264	50	father
308	32	families
399	33	daughter
448	29	parent
545	24	wife

Government

Rank	Freq	Word
214	60	ministry
252	52	government
258	51	moe
440	30	minister

|--|

Abuse

Rank	Freq	Word
229	57	abuse
394	34	suicide
499	26	harassment
574	22	abused

STI

Rank	Freq	Word
146	86	sexually
270	49	contraception
396	34	transmitted
621	21	infections

Pregnancy and abortion

Rank	Freq	Word
270	49	contraception
379	39	pregnancy
389	34	pregnant
464	28	pregnancies
647	20	abortion

Abstinence

Rank	Freq	Word
371	35	abstinence

Religion

	Rank	Freq	Word
288		46	religious

Sexuality

Rank	Freq	Word
73	185	sexuality
253	37	gender
387	34	homosexuality

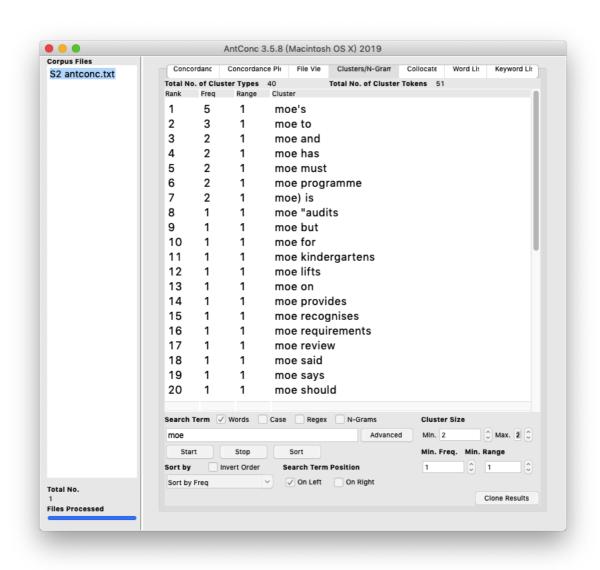


418	32	gay
I I		

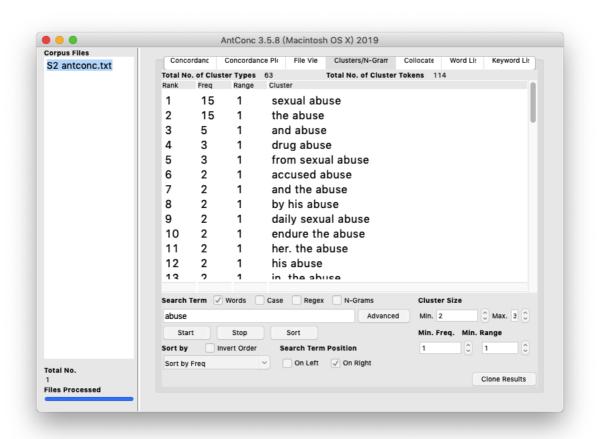
Internet

Rank	Freq	Word
125	104	porn
215	60	pornography
237	56	internet
268	50	media

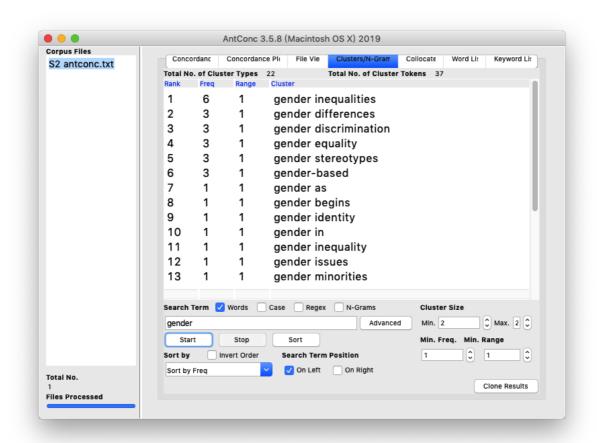
Appendix 28: Selected "Clusters" of S2 - "moe"



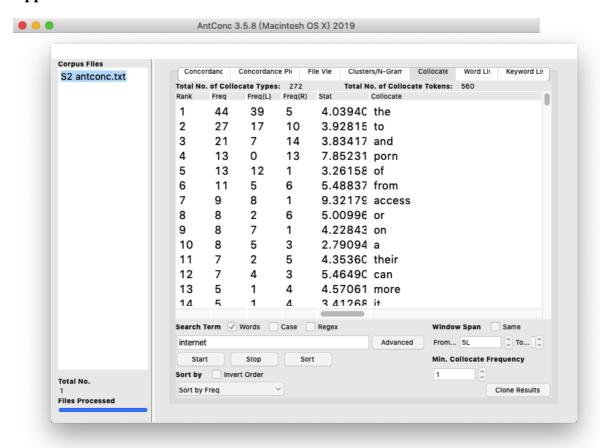
Appendix 29: Selected "Clusters" of S2 – "abuse"



Appendix 30: Selected "Clusters" of S2 – "gender"



Appendix 31: Selected "Collocates" of S2 - "internet"



Appendix 32: "Keyword List" of C2 with C1 as the Reference Corpus

• •				Keyword List Results 2
Rank	Types: Freq	65 Keyness (LL4)	(eyword Tokens: Effect (DICE)	4411 Search Hits: 0 Keyword
1	97	+ 149.28	0.0046	侵害
2	731	+ 122.7	0.0334	性
3	979	+ 122.24	0.0334	教育
4	67	+ 102.35	0.0032	幼儿
5	256	+ 88.99	0.0002	家长
6	83	+ 80.72	0.0039	安全
7	55	+ 80.22	0.0026	案件
8	63	+ 65.89	0.003	幼儿园
9	52	+ 64.26	0.0024	子女
10	60	+ 63.58	0.0028	英国
11	32	+ 55.98	0.0015	猥亵
12	84	+ 51.59	0.004	保护
13	23	+ 46.01	0.0011	改革
14	29	+ 45.02	0.0014	玫
15	20	+ 40.01	0.0009	性侵
16	19	+ 38.01	0.0009	枸杞
17	22	+ 36.7	0.001	隐私
18	173	+ 35.18	0.0081	教师
19	17	+ 34.01	0.0008	青爱
20	24	+ 31.93	0.0011	性学
21	19	+ 30.99	0.0009	彭晓辉
22	51	+ 30.02	0.0024	未成年人
23	49	+ 28.92	0.0023	进行性
24	14	+ 28.01	0.0007	胡萍
25	49	+ 27.58	0.0023	专业
26	28	+ 27.41	0.0013	色情
27	13	+ 26.01	0.0006	小屋
28	24	+ 25.94	0.0011	防艾
29	95	+ 25.54	0.0045	月
30	28	+ 25.21	0.0013	性别
31	61	+ 25.04	0.0029	B
32	12	+ 24.01	0.0006	两会
33	12	+ 24.01	0.0006	义务教育
34	12	+ 24.01	0.0006	全国政协

				Keyword List Results 2
	Types:		yword Tokens:	4411 Search Hits: 0
Rank 32	Freq 12	Keyness (LL4) + 24.01	0.0006	Keyword 内会
33	12	+ 24.01	0.0006	义务教育
34	12	+ 24.01	0.0006	全国政协
35	27	+ 23.72	0.0013	初中生
36	24	+ 23.49	0.0011	认知
37	15	+ 23.44	0.0007	手机
38	35	+ 22.69	0.0016	校园
39	20	+ 22.05	0.0009	管理
40	11	+ 22	0.0005	也就是说
41	11	+ 22	0.0005	张玫玫说
42	11	+ 22	0.0005	熊丙奇
43	23	+ 21.95	0.0011	性教育
44	14	+ 21.58	0.0007	网友
45	18	+ 21.54	0.0008	小学生
46	18	+ 21.54	0.0008	防范
47	79	- 128.84	0.0037	我
48	22	- 46.27	0.001	大学生
49	4	- 45.15	0.0002	心理健康
50	93	- 41.55	0.0043	他们
51	20	- 38.97	0.0009	女孩
52	5	- 37.48	0.0002	怀孕
53	60	- 33.55	0.0028	他
54	7	- 33.5	0.0003	中学生
55	188	- 31.86	0.0087	有
56	51	- 29.82	0.0024	心理
57	47	- 27.61	0.0022	她
58	69	- 25.99	0.0032	人
59	8	- 25.17	0.0004	性侵犯
60	69	- 24.44	0.0032	我们
61	11	- 23.76	0.0005	同学
62	3	- 23.27	0.0001	成熟
63	5	- 23.09	0.0002	少女
64 65	28 62	- 22.52 - 21.54	0.0013 0.0029	又 们

Appendix 33: "Keyword List" of HK2 with HK1 as the Reference Corpus

		60		Keyword List Results 3
ceyword Rank	Types: Freq	62 Ke Keyness (LL4)	yword Tokens: Effect (DICE)	5691 Search Hits: 0 Keyword
1	302	+ 151.86	0.006	says
2	59	+ 128.4	0.0012	vr
3	50	+ 108.81	0.001	lgbt
4	38	+ 74.22	0.0008	bullying
5	34	+ 73.99	0.0007	eyres
6	69	+ 65.59	0.0014	porn
7	22	+ 47.87	0.0004	x
8	63	+ 39.37	0.0013	court
9	18	+ 39.17	0.0004	zines
10	23	+ 37.75	0.0005	у
11	808	+ 37.34	0.0159	s
12	17	+ 36.99	0.0003	zine
13	16	+ 34.82	0.0003	klein
14	205	+ 33.5	0.0041	women
15	27	+ 32.39	0.0005	marwah
16	14	+ 30.46	0.0003	judiciary
17	14	+ 30.46	0.0003	rmb
18	137	+ 30.3	0.0027	city
19	51	+ 30.04	0.001	gender
20	18	+ 27.81	0.0004	erectile
21	21	+ 27	0.0004	tobacco
22	19	+ 26.28	0.0004	intimacy
23	12	+ 26.11	0.0002	flynn
24	12	+ 26.11	0.0002	zeising
25	33	+ 26.06	0.0007	products
26	282	+ 24.51	0.0056	her
27	26	+ 24.07	0.0005	suicide
28	11	+ 23.94	0.0002	pathfinders
29	11	+ 23.94	0.0002	possibilities
30	14	+ 23.94	0.0003	rice
31	16	+ 23.9	0.0003	glass
32	19	+ 23.38	0.0004	judges
33	77	+ 22.98	0.0015	mainland
34	17	+ 22.55	0.0003	convention

O O	Types:	62	eyword Tokens:	Keyword List Results 3 5691 Search Hits: 0			
Rank	Freq	Keyness (LL4)	Effect (DICE)	Keyword			
30	14	+ 23.94	0.0003	rice			
31	16	+ 23.9	0.0003	glass			
32	19	+ 23.38	0.0004	judges			
33	77	+ 22.98	0.0015	mainland			
34	17	+ 22.55	0.0003	convention			
35	21	+ 22.02	0.0004	expo			
36	15	+ 21.97	0.0003	transgender			
37	13	+ 21.91	0.0003	sticky			
38	10	+ 21.76	0.0002	helper			
39	22	+ 21.57	0.0004	jones			
40	24	+ 20.95	0.0005	foreign			
41	6	- 118.62	0.0001	ms			
42	20	- 41.93	0.0004	dr			
43	443	- 41.19	0.0087	said			
44	178	- 39.13	0.0035	students			
45	57	- 37.74	0.0011	aids			
46	231	- 37	0.0046	should			
47	27	- 32.8	0.0005	mr			
48	46	- 29.86	0.0009	however			
49	10	- 28.27	0.0002	ng			
50	1	- 27.96	0	obscene			
51	451	- 26.79	0.0089	education			
52	5	- 24.93	0.0001	bags			
53	4	- 24.65	0.0001	photos			
54	10	- 23.54	0.0002	road			
55	803	- 23.44	0.0156	sex			
56	581	- 23.13	0.0114	be			
57	5	- 22.3	0.0001	catholic			
58	17	- 22.18	0.0003	english			
59	37	- 21.67	0.0007	internet			
60	3	- 21.06	0.0001	web			
61 62	1 95	- 21.03 - 20.79	0 0.0019	findings teachers			

Appendix 34: "Keyword List" of S2 with S1 as the Reference Corpus

• • •				Keyword List I	eyword List Results 4			
-	d Types:		Keyword Tokens:	5874	Search Hits:	0		
Rank	Freq	Keyness (LL4)	Effect (DICE)	Keyword				
1	53	+ 104.73	0.001	zen				
2	54	+ 97.65	0.001	comedy				
3	104	+ 85	0.002	porn				
4	53	+ 84.13	0.001	nus				
5	36	+ 71.14	0.0007	nlb				
6	503	+ 52.87	0.0096	her				
7	33	+ 51.74	0.0006	maids				
8	32	+ 49.88	0.0006	miscondu	ıct			
9	24	+ 47.42	0.0005	chiat				
10	102	+ 47.15	0.002	report				
11	596	+ 46.27	0.0114	she				
12	32	+ 45.55	0.0006	ed				
13	22	+ 43.47	0.0004	wellness				
14	21	+ 41.49	0.0004	lek				
15	63	+ 41.19	0.0012	science				
16	87	+ 37.62	0.0017	university	,			
17	19	+ 37.54	0.0004	maid				
18	25	+ 37	0.0005	facebook				
19	29	+ 36.65	0.0006	photo				
20	602	+ 36.53	0.0115	he				
21	22	+ 36.18	0.0004	ngos				
22	60	+ 34.56	0.0012	single				
23	27	+ 33.23	0.0005	employer	s			
24	20	+ 32.41	0.0004	titles				
25	358	+ 31.92	0.0069	his				
26	28	+ 31.91	0.0005	conversat	tions			
27	143	+ 31.78	0.0028	him				
28	22	+ 31.57	0.0004	repeal				
29	26	+ 31.54	0.0005	joo				
30	24	+ 31.38	0.0005	moved				
31	19	+ 30.53	0.0004	mosque				
32	93	+ 30.27	0.0018	lim				
33	21	+ 29.77	0.0004	cedaw				
34	15	+ 29.64	0.0003	vaccinate	d			
35	61	+ 27.18	0.0012	board				
36	17	+ 26.8	0.0003	assault				
37	42	+ 26.45	0.0008	mental				
38	26	+ 26.08	0.0005	harassme	ent			
39	13	+ 25.69	0.0003	cov				
40	24	+ 25.42	0.0005	addiction				
41	24	+ 25.42	0.0005	universitie	es			
42	16	+ 24.94	0.0003	disciplina	ry			
43	18	+ 24.43	0.0003	coalition				
44	18	+ 24.43	0.0003	cyber 				

				Keyword List Re		
eyword			Keyword Tokens:		earch Hits:	0
ank 40	Freq 24	Keyness (LL4) + 25.42	Effect (DICE)	Keyword aggiction		
41	24	+ 25.42	0.0005	universities		
42	16	+ 24.94	0.0003	disciplinary		
42	18	+ 24.43	0.0003	coalition		
43 44	18	+ 24.43	0.0003	cvber		
45	12	+ 23.71	0.0003	tit		
45 46	44	+ 23.42	0.0002	books		
46 47	37	+ 23.42	0.0008	CO		
48	19	+ 23.09	0.0007	males		
49	22	+ 22.25	0.0004	academic data		
50	22	+ 22.25	0.0004			
51	35	+ 22.04	0.0007	section		
52	11	+ 21.73	0.0002	dylan		
53	11	+ 21.73	0.0002	instagram		
54	11	+ 21.73	0.0002	pow		
55	14	+ 21.25	0.0003	healthcare		
56	14	+ 21.25	0.0003	shelves		
57	60	+ 21.22	0.0012	pornograpi	ny	
58	16	+ 20.92	0.0003	ying		
59	1	- 143.52	0	aids		
60	7	- 103.12	0.0001	hiv		
61	56	- 92.37	0.0011	teens		
62	2	- 66.76	0	radio		
63	778	- 64.2	0.0147	sex		
64	210	- 56.53	0.004	you		
65	20	- 54.77	0.0004	abortion		
66	16	- 51.11	0.0003	condoms		
67	6	- 49.22	0.0001	youths		
68	7	- 48.97	0.0001	condom		
69	68	- 41.8	0.0013	your		
70	35	- 40.16	0.0007	abstinence		
71	480	- 37.4	0.0091	i		
72	1	- 36.93	0	net		
73	7	- 35.12	0.0001	exco		
74	4	- 32.28	0.0001	marital		
75	2	- 31.88	0	malay		
76	1	- 29.84	0	infected		
77	16	- 24.3	0.0003	abortions		
78	1	- 23.7	0	workshop		
79	61	- 23.43	0.0012	values		
80	21	- 22.43	0.0004	teen		
81	16	- 21.36	0.0003	message		
82	85	- 21.03	0.0016	programme	•	
83	18	- 20.97	0.0003	active		