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## **Biblical Perspective and Educational Domains in Sex Education: Addressing Gaps in Indonesian Sex Education**

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### **Abstract**

In Indonesia, sex education is delivered in public high schools as part of the biology curriculum and under the topic of reproductive health. According to the government's view, when schools teach students properly about reproductive health, they will have a good understanding of their sexuality. Therefore, there is no need to have any further sexual education outside of the school curriculum. However, about half of the teenagers living in major cities are involved in premari-tal sex, and the rate of teen abortion and HIV infections is high. This article examined the imple-mentation of sexual education in public high schools in Indonesia using a combination of quali-tative and quantitative research. The survey was done on a sample of 416 students from 30 pro-vinces and 66 cities in Indonesia. The finding support a particular approach to sex education that incorporates cognitive, affective, and psychomotor learning aspects of educational taxono-my. We find that it is essential to develop a separate sex education module in addition to the current reproductive health topic taught in biology to encourage students to practice abstinence, rather than just teaching reproductive health.

**Keywords:** affective; abstinence-only; cognitive; psychomotor; sex education; teen-sexuality

## INTRODUCTION

Sex education is a taboo subject in Indonesia. It is only a part of biology classes in the public high school curriculum, not a separate module. Mr. Hamin Muhammad, the Director of Elementary and Secondary Education of the Indonesian Ministry of Education and Culture, has stated that sex education is included in the 2013 curriculum under reproductive health under biology. He has asserted that students should be able to understand human sexuality as long as the school teaches the subject in accordance with the rules.<sup>1</sup>

In the standard biology textbooks used at the high school level, sex is discussed only in terms of the human reproduction system. This subject covers the reproductive organs, the Latin names for each organ, hormones, contraception and the staged development of the fetus until birth.<sup>2</sup> However, the information is presented only as academic information about the human body, with no reference to the psychological or social impact of premarital sex. It also lacks the moral values and skills needed to avoid premarital sex. There is a gap in the

current sex education examined from the three dimensions of educational objectives: cognitive, affective, and psychomotor.

A course is designed intentionally with clear objectives structured as three domains: cognitive, affective, and psychomotor goals to achieve specific learning objectives. This domain of instructional design is called Bloom's Taxonomy.<sup>3</sup> To effectively achieve educational goals, teachers need to ensure that the students acquire specific knowledge, attitude, and skills. This research examines whether the three domains of educational objectives are present in the school-based sex education program, that is, in the biology subject.

The cognitive dimension of sex education was measured by asking whether the students had been given any information about reproductive organs, the reproductive process, sexually transmitted diseases, the importance of boundaries in relationships, the psychological effects of premarital sex, and other questions related to the information surrounding knowledge on sexuality and boundaries in relationships. The affective dimension was measured by inquiries

<sup>1</sup> Joko Panji Sasongko, "Kemdikbud: Pendidikan Seks Sudah Masuk Kurikulum," CNN Indonesia, 2016, <https://www.cnnindonesia.com/nasional/20160521083036-20-132374/kemdikbud-pendidikan-seks-sudah-masuk-kurikulum>.

<sup>2</sup> Irnaningtyas and Yossa Istiadi, *Biologi Untuk SMA/MA Kelas XI* (Jakarta: Erlangga, 2016).

<sup>3</sup> Sónia Rolland Sobral, "Bloom's Taxonomy to Improve Teaching-Learning in Introduction to Programming," *International Journal of Information and Education Technology* 11, no. 3 (2021): 148–53, <https://doi.org/10.18178/ijiet.2021.11.3.1504>.

related to the subject's emotions, feelings, and attitudes, such as respecting others, having a sense of responsibility, controlling sexual desire, and building faith to resist sexual urges. The psychomotor dimension was measured by whether the students were taught to behave a certain way in refusing sexual advances and propositions. This includes how to say no, respond to peer pressure, communicate well, and refrain from sexual arousal by avoiding pornographic materials, among other things.

There is, therefore, a great need for a more serious sexual education program that must also respond to the growing online culture that makes it easier for pornography to be accessed by our children and teenagers these days. With one click, they can see people engaging in sexual relations, even when their parents and the schools have yet to prepare them with the correct information regarding sex. A non-profit organization that provides sex education for teens has conveyed that most teenagers rely on their peers or the Internet to get their information about sex, mostly from pornographic materials. Thus, it is necessary to make sex education a mandatory program for teenagers in Indonesia.

## RESEARCH METHOD

This research uses a combination of qualitative and quantitative research. It employs literature research to describe the background, develop the theories, and research previous findings on the subject. Literature research is considered an appropriate approach to explaining and exploring a specific research problem.<sup>4</sup>

Aside from the literature research, this research also obtained information through focus group discussions with teachers, researchers, and experts from NGOs, the Department of Education of Indonesia (Kementerian dan Kebudayaan), the Coordinating Ministry for Human Development and Cultural Affairs (Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan) as well as the National Population and Family Planning Board (BKKBN). A Focus group discussion is a semi-structured interview to gather information from individuals with a high level of expertise in the research topic.<sup>5</sup> The discussion was held before the research started to explore the issue in a more detailed manner and understand the context of the problem. Another focus discussion group was held after the quantitative survey was done to compare the

<sup>4</sup> Hannah Snyder, "Literature Review as a Research Methodology: An Overview and Guidelines," *Journal of Business Research* 104 (2019): 333–39, <https://doi.org/10.1016/j.jbusres.2019.07.039>.

<sup>5</sup> Tobias O. Nyumba et al., "The Use of Focus Group Discussion Methodology: Insights from Two Decades of Application in Conservation," *Methods in Ecology and Evolution* 9, no. 1 (2018): 20–32, <https://doi.org/10.1111/2041-210X.12860>.

research result with the actual situation in the field and deepen the research conclusion.

This research focuses on studying the implementation of sex education or reproductive health education in the biology subject in public high schools around Indonesia in terms of Bloom's taxonomy. It will dissect whether sex education program in high schools in Indonesia has implemented the cognitive, affective, and psychomotor aspects of instructional design. First, it will provide the background of teen sexual behavior in Indonesia to emphasize the need for sex education. Second, it describes the two types of sex education: abstinence-only and comprehensive sex education and suggests the most appropriate type to be implemented in Indonesia. Third, it will explain Bloom's Taxonomy in light of sex education in Indonesia before describing the quantitative research findings and concludes with some suggestions.

The research used a sample size of 416 high school students taken from 30 provinces and 66 cities in Indonesia, proportional to the relative populations of students in West, Central, and East Indonesia. The number of samples taken follows Isaac

and Michael's sample size formula for a confidence level of 95% with a 5% margin of error. The data is processed through statistical analysis using SPSS. Achievement of the learning objectives was assessed and measured using a Likert scale to measure attitude or the scale of agreement on a given issue.<sup>6</sup>

## RESULTS AND DISCUSSION

The head of BKKBN (Badan Kependudukan dan Keluarga Berencana Indonesia, or the National Population and Family Planning Board) has stated that 51% of the teens in Jakarta have been involved in premarital sex. The rates in three other major cities are similar: 54% in Surabaya, 47% in Bandung, and 52% in Medan. This data means that approximately half of the teenagers living in several major cities in Indonesia have been involved in premarital sex. As a result, the teen pregnancy rate in Indonesia has reached up to 48 out of 1000 teenagers, with the highest number in West Kalimantan: 108 pregnancies out of 1,000 teenagers.<sup>7</sup> As a result, the abortion rate among teens is relatively high. According to BKKBN, there are 800,000 cases of teen abortion (15-19 years old) per year, mean-

<sup>6</sup> Ankur Joshi et al., "Likert Scale : Explored and Explained," *Current Journal of Applied Science and Technology* 7, no. 4 (2015): 396–403, <https://doi.org/10.9734/BJAST/2015/14975>.

<sup>7</sup> Esti Utami and Fista Nodia, "Angka Kehamilan Di Kalangan Remaja Tinggi, BKKBN Ubah Strategi," *Suara.com*, 2016, <https://www.suara.com/lifestyle/2016/04/05/164816/angka-kehamilan-di-kalangan-remaja-tinggi-bkkbn-ubah-strategi>.

ing that there are 2,000 teen abortions per day. HIV infection poses another problem for teens, as 1,729 teens (15-19 years old) were recorded as having contracted the disease between 2010-2017. This statistic conveys the need for sexual education to be taken more seriously among teens in Indonesia, even outside the formal curriculum.

While the world has taught teenagers about sexuality through the media, parents, educators, and religious leaders are hesitant to teach sexuality to teens. With one click, children and teenagers can access sexual and pornographic content. In a survey done at an elementary school in Bogor, about 81,6% of the students had been exposed to pornographic materials, and 46% of those students had also been exposed to hard-core pornographic content.<sup>8</sup> Even from a very young age, our children are exposed to pornographic materials. However, parents and schools are silenced by taboos and the assumption that by the time their teens are married, they will know about sex. Even the government does not consider teaching sex education a priority, as conveyed by the head of Perkumpulan Keluarga Berencana

Indonesia (an NGO in family planning). According to them, teaching sex education in the curriculum from elementary to high school has been generally rejected. This hesitance may result from the government seeing it as a taboo subject and concerned about its impact.

Globally, there are two types of sex education available to teens: one promotes abstinence-only, and the other is more comprehensive sex education. Abstinence-only sex education advocates that teens should refrain from premarital sex, while comprehensive sex education teaches the use of contraceptives for sexually-active teens.

Abstinence-only sex education is generally considered the most appropriate approach to take in Indonesia because of this nation's cultural and religious background. The first point of the nation's philosophy declares a general belief in God. Thus, religion plays a vital role in the lives of the ordinary people of Indonesia. In Islam, premarital sex is considered a sin (Zina).<sup>9</sup> And in Christianity, sexual intercourse is also only permissible within a marriage.<sup>10</sup> Thus, in a society where religion is highly esteem-

<sup>8</sup> Dwi Rochmawati, Asri M. Arsyati, and Supriyanto, "Gambaran Keterpaparan Media Berkonten Pornografi Pada Anak-Anak Peserta Didik Kelas 4, 5 Dan 6 Di SDN Kayu Manis 2 Kota Bogor," *Jurnal Mahasiswa Kesehatan Masyarakat* 2, no. 5 (2019): 351–60, <https://doi.org/10.32832/pro.v2i5.2524>.

<sup>9</sup> Muhammad Gazali Syariful and Hamzah Hasan, "Tinjauan Normatif Etika Seksual Dalam Hukum Islam," *Siyasatuna* 2, no. 1 (2020): 34–47.

<sup>10</sup> Alfons Renaldo Tampenawas and Veydy Yanto Mangantibe, "Tinjauan Etis Kristen Terhadap Seksualitas Di Kalangan Pemuda-Pemudi Gereja," *SHAMAYIM: Jurnal Teologi dan Pendidikan Kristiani*, 2020, <https://doi.org/10.51615/sha.v1i1.1>.

ed, sexual purity is still considered to be an essential value. Therefore, the government of Indonesia has encouraged teens to avoid risky sexual behaviors through a specific campaign promoting abstinence instead of distributing condoms to the teens.<sup>11</sup>

There are serious problems linked to premarital sex. Premarital sex presents several health problems for teens, such as sexual diseases and HIV/AIDS. The Association of Dermatologists and Venereologists in Indonesia has stated that the number of teens with venereal diseases is continuously rising.<sup>12</sup> Sexual activity outside the context of marriage is potentially causing harmful psychological effects for teens. Sex is not merely a physical transaction that simply requires the proper hygienic tools, but it also involves powerful feelings that teenagers are often unable to manage well.<sup>13</sup> In addition, sexual intercourse not only involves intense emotions such as intimacy, pleasure, and affection but also anxiety, guilt, and embarrassment. Thus, sex education involves more than just learning about the human body or reproductive health. Halstead has stated that the aim of sex education in-

cludes encouraging certain kinds of skills, attitudes, dispositions, and behaviors and critical reflection on personal experience.<sup>14</sup> Therefore, there is a need to establish an understanding of the negative impact of premarital sex in terms of psychological well-being.

Premarital sex might later bring about discord within a marriage. Research by Stanley and Rhoades has stated that sexual relationships with many partners before marriage may decrease overall satisfaction in the marriage relationship. On the contrary, partners who have only one sexual relationship will experience greater happiness in marriage.<sup>15</sup>

Thus, the goal of sex education in Indonesia is to help teens avoid premarital sex through a thorough understanding of the negative impact of premarital sex, as well as instilling values and building skills that would help teens resist peer pressure or other influences to engage in premarital sex. They need to be encouraged to weigh the costs and benefits of early sexual involvement and understand that refraining from premarital sex will help them to establish a

<sup>11</sup> "Menkes: Saya Tak Setuju Kondom Dibagikan Ke Anak-Anak Muda," Detiknews, 2012, <https://news.detik.com/berita/d-1954846/menkes-saya-tak-setuju-kondom-dibagikan-ke-anak-anak-muda>.

<sup>12</sup> Nilam Suri, "PERDOSKI: Jumlah Remaja Menderita Penyakit Kelamin Meningkat," Liputan6, 2017, <https://www.liputan6.com/health/read/3056537/>

perdoski-jumlah-remaja-menderita-penyakit-kelamin-meningkat.

<sup>13</sup> Kay S Hymowitz, "What to Tell the Kids about Sex," *Public Interest* 153 (2003): 3–18.

<sup>14</sup> Mark Halstead and Michael J Reiss, *Values in Sex Education* (London: Taylor & Francis Group, 2004).

<sup>15</sup> Scott Stanley and Galena Rhoades, "The Perils of Sowing Your Wild Oats," *Psychology Today*, 2016.

better life. Part of the goal of sex education is convincing teens that they have the capacity to use a specific strategy to refrain from premarital sex.<sup>16</sup> The main concern of this research is to determine whether the current biology subject in high school has encompassed this aspect, aside from sharing information about reproductive health.

### **The Domains of Educational Taxonomy**

There is a framework for classifying what teachers want their students to learn from a lesson. Benjamin S. Bloom initiated the idea of domains in educational learning, and these were later expanded into three areas: (1) cognitive, or knowledge and the development of intellectual skills; (2) affective, which focuses on growth in values, feelings, attitude, motivation, and emotional areas; (3) psychomotor, which concentrates on physical skills such as how to do something. The purpose of this taxonomy, as stated by Bloom, is: “What we are classifying is the intended behavior of students – the ways in which individuals are to act, think, or feel as the result of participating in some unit of instruction.”<sup>17</sup> These three do-

main needs need to be applied to achieve a desirable result from educational or learning activities. This research aims to evaluate whether the three domains of educational learning are applied in teaching reproductive health in high school.

Learning in the cognitive domain is explained by David R. Krathwohl as a process that involves remembering, understanding, applying, analyzing, evaluating, and creating.<sup>18</sup> In terms of sex education, this cognitive learning is expected to result in students’ understanding of the reproduction system, pregnancy, sexually transmitted diseases, the negative impact of premarital sex, the psychological impact of premarital sex, the need to protect their private parts, the boundary in relationships, and other information.

The affective domain is considerably more complex than the cognitive domain, as it deals with feelings, attitudes, and values that shape the mind and behavior. Learning in the affective domain involves the willingness to receive new information, respond to that information, commit to a particular value, apply it, and consistently

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<sup>16</sup> Kristin A Moore and Barbara W Sugland, “Using Behavioral Theoriesto Design Abstinence Programs,” *Children and Youth Service Review* 19, no. 5/6 (1997): 485–500, [https://doi.org/10.1016/S0190-7409\(97\)00029-7](https://doi.org/10.1016/S0190-7409(97)00029-7).

<sup>17</sup> Benjamin S Bloom et al., *Taxonomy of Educational Objectives* (Ann Arbor, Michigan: David McKay Company, Inc, 1956).

<sup>18</sup> David R Krathwohl, “A Revision Bloom’s Taxonomy: An Overview,” *Theory into Practice* 41, no. 4 (2002): 212–18, [https://doi.org/10.1207/s15430421tip4104\\_2](https://doi.org/10.1207/s15430421tip4104_2).

display behavior suitable to the values.<sup>19</sup> In terms of the effective learning objective, the student needs to value themselves and the idea of purity, so they will have the determination to refuse to engage in premarital sex. Sex education should result in a conviction towards abstinence as a better choice. The students also need to believe that avoiding premarital sex will be more beneficial for their lives in the future. They need to know consequences of premarital sex may hinder their plans for their future: such as when girls cannot complete school due to early pregnancy.<sup>20</sup> Sex education should increase students' self-esteem, reminding them that they are valuable. The topic of self-esteem is considered an important objective as teens with low self-esteem appear to have a greater tendency to engage in premarital sex.<sup>21</sup> Another critical factor in encouraging teens to embrace abstinence is emphasizing religious values as the primary motivation for

abstinence from sexual activity.<sup>22</sup> Religiosity serves as a driving force for a more conservative attitude towards sexuality.<sup>23</sup>

Psychomotor or behavioral objectives are statements that describe what the students will be able to do after completing a prescribed unit of instruction<sup>24</sup> or changes in behavior and skills acquisition.<sup>25</sup> Concerning sex education for teens, the psychomotor learning objectives build their skills or ability to communicate their opinions on sex and refuse to engage in sexual activity. They need to learn tips on staying away from pornographic content as exposure to pornographic materials increases permissiveness in sexual attitude.<sup>26</sup>

### **Impact of Sex Education – Learning from the Bible**

One impact of sex education should be the ability to respond appropriately to sexual advances, as demonstrated by Joseph's

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<sup>19</sup> Lusiana Syaiful, Marina Ismail, and Zalilah Abd Aziz, "A Review of Methods to Measure Affective Domain in Learning," in *2019 IEEE 9th Symposium on Computer Applications & Industrial Electronics (ISCAIE)* (IEEE, 2019), 282–86.

<sup>20</sup> Moore and Sugland, "Using Behavioral Theoriesto Design Abstinence Programs."

<sup>21</sup> Brent C. Miller, Roger B. Christensen, and Terrance D Olson, "Adolescent Self-Esteem in Relation to Sexual Attitudes and Behavior," *Youth & Society* 19, no. 1 (1987): 93–111, <https://doi.org/10.1177/0044118X87019001005>.

<sup>22</sup> Sharon Scales Rostosky et al., "The Impact of Religiosity on Adolescent Sexual Behavior: A Review of the Evidence," *Journal of Adolescent Research* 19, no. 6 (2015): 677–97, <https://doi.org/10.1177/0743558403260019>.

<sup>23</sup> Tierney K. Ahrold et al., "The Relationship among Sexual Attitudes, Sexual Fantasy, and Religiosity," *Archives of Sexual Behavior* 40, no. 3 (2011): 619–30, <https://doi.org/10.1007/s10508-010-9621-4>.

<sup>24</sup> R.J. Kibler, L.L. Barker, and D.T. Miles, *Behavioral Objectives and Instruction* (Boston: Allyn and Bacon, 1970).

<sup>25</sup> Bloom et al., *Taxonomy of Educational Objectives*.

<sup>26</sup> Cecilia M.S. Ma, "Relationships between Exposure to Online Pornography, Psychological Well-Being and Sexual Permissiveness among Hong Kong Chinese Adolescents: A Three-Wave Longitudinal Study," *Applied Research in Quality of Life* 14, no. 2 (2019): 423–39, <https://doi.org/10.1007/s11482-018-9604-5>.



actions when approached by Potiphar's wife: "Come to bed with me!" (Gen. 39:6-15). Joseph understands the boundaries of trust placed upon him, stating, "My master has withheld nothing from me except you." Teenagers need to understand the distinction between friendship and sexual relationships, discerning accepted behaviors from unacceptable ones. Joseph also recognizes that violating God's boundaries on sex constitutes a sin, stating, "How then could I do such a wicked thing and sin against God?" It's crucial for teens to understand that pornography is not an art form but a sinful behavior, and that sexual relationships are intended by God solely for marriage between a man and a woman.

During his encounter with Potiphar's wife, Joseph verbally rejects her advances, emphasizing the importance of saying "No" to ensure the absence of consent. Absence of consent signifies unwelcome sexual advances and not meaningful or loving sexual acts but rather a violation of human dignity.

When the pressure persists and Potiphar's wife grabs Joseph by his cloak, he leaves it behind and flees the situation. Joseph's decision to run from temptation sets a positive example for teenagers facing similar situations. They need to learn practical strategies for avoiding temptation, such as not being alone with a computer in a

room when tempted by pornography, and managing rising sexual desires by distracting themselves with other activities or re-directing their thoughts.

Joseph's handling of temptation encompasses three aspects of education. First, the knowledge aspect (cognitive). This is reflected by Joseph knowing the boundaries he should not cross, and understanding that the request to sleep with her meant having a sexual relationship; therefore, he refused her approach. Second, the values and attitude aspect (affective), reflected in his expression that sleeping with Potiphar's wife was a sin against God. Joseph embraced a value that supported sexual purity and made his decision based on that value. Third, the psychomotor or behavior aspect, reflected by saying "no", and his running away from Potiphar's wife. In short, Joseph demonstrates understanding of the boundaries of sexual relationships (cognitive), holds a negative attitude toward sex outside of marriage, considering it a sin (affective), and takes physical action to avoid further danger (psychomotor).

The Bible also warns against adultery in Proverbs 5:1-23. It begins with a call to embrace wisdom, understanding, and knowledge (verses 1-2), involving cognitive aspects. Strong's Concordance explains "understanding" (tabun) as implying intelli-

gence, argument, and reason. In verses 3-4, the text provides reasoning: "For the lips of a strange woman drop as a honeycomb, and her mouth is smoother than oil: But her end is bitter as wormwood, sharp as a two-edged sword." This appeals to logical reasoning and cognitive aspects.

The writer of Proverbs also engages the emotions, attitudes, and motivations of the young man by vividly describing the consequences of adulterous acts: losing honor (verse 9), experiencing sorrow (verse 10), and feeling deep remorse (verse 12). This passage not only addresses his "feelings" but also instills the fear of the Lord by explaining that no one can escape His sight and everyone will be held accountable for their sins. This represents the affective aspect of the teaching against adultery.

Furthermore, the passage provides a psychomotor or behavioral aspect by advising specific actions to take in response to temptation: "Remove thy way far from her" and do not go near her house. The writer of Proverbs offers practical steps, not just reasons, philosophies, or cognitive insights. Meaningful advice includes actionable plans, ensuring that one knows exactly how to respond to the warning.

Still, some other verses teach against immorality while encompassing the cognitive, affective, or psychomotor aspects. In 1

Corinthians 6:18-20, Paul explains that sexual sin is sinning against one's own body, and he reminds the reader that they have been bought by God and are not their own. This knowledge (cognitive aspect) is followed by a command to do something (psychomotor aspect): "Glorify God in your body." In another verse, the writer of Hebrews emphasizes an affective aspect, instilling a sense of reverence and respect toward purity by invoking fear of divine judgment: "God will judge the sexually immoral and adulterous" (Heb. 13:4).

The above passages illustrate that the Bible encourages resistance against sexual immorality by appealing to one's understanding (cognitive aspect), emotions and motivations (affective aspect), and by issuing commands to take specific actions (psychomotor aspect).

### **The Three Domains of Educational Taxonomi in Sex Education.**

The three domains of educational taxonomy (cognitive, affective, psychomotor) should be present in sex education to ensure its effectiveness. The survey questionnaire represents the three domains of instructional objectives: cognitive, affective, and psychomotor, expressed in 10 indicators stated in the Table 1.

Table 1. Domain, indicators, and topics of sex education taught at school

| Domain      | Indicator                                 | Topics  |
|-------------|---|---|
| Cognitive   | Understanding biological information      | Understand the reproduction system and pregnancy.   |
|             | Understanding the risk of premarital sex. | Understand transmitted diseases, the psychological impact of premarital sex, and the impact of premarital sex to students' future.  |
|             | Understanding the boundaries              | protecting private parts, boundaries in the relationship, safe relationship.  |
| Affective   | Courage to say no                         | The courage to refuse an invitation to have sex; dare toward people's hands who try to touch private parts.   |
|             | Having a sense of responsibility          | A sense of responsibility to keep students' purity, recognizing the detrimental effect of premarital sex, and understanding the burdensome responsibility of building a family. |
|             | Respecting others                         | Respecting others' opinions on sexuality, treating others with respect, and guarding the purity of the student's boyfriend/girlfriend.  |
| Psychomotor | Fear of God                               | Religious stance on premarital sex, prayer, and faith.  |
|             | Stand firm                                | Respecting self by not doing premarital sex and managing sexual desire to keep student's purity.  |
|             | Leaving temptation                        | Avoiding things that trigger sexual arousal (including pornography)   |
|             | Communication skill                       | Learning how to express opinions and objections (consenting) and building good communication skills.  |

The respondents were asked whether they were taught the above subjects at school on the scale: never, rarely, sometimes, often, always. About 65,1% of respondents are female, and 34,9 respondents are male. They were from grade 10 (14,2%), grade 11 (32,2%) and grade 12 (53,6%).

The data were analyzed using descriptive technique and categorized into three tendencies whether the sex education based on three instructional designs (cognitive, affective, psychomotor) was not yet implemented, moving into implementation, or al-

ready implemented. The survey results are that cognitive and psychomotor dimensions fell into the category “moving into implementation,” and the affective domain is “already implemented.” This finding was different than the research hypothesis that infers affective domain was missing since the biology textbook did not include any moral values or motivational encouragement to abstain from premarital sex. Another finding is that the correlation among each dimension (cognitive, affective, and behavioral) are relatively weak compared to their

direct correlation to sex education (dependent variable). This means that each dimension works separately and not in synergy in forming the implementation of sex education.

The result that showed no correlation between the three dimensions: cognitive, affective, and psychomotor, means that there is no synergy among these three educational objectives in the current sex education within the biology subject. This finding was also confirmed during the Focus Group Discussions with the high school teachers, as they confirmed that the students are learning the cognitive domain during their biology subject. At the same time, the psychomotor aspects of sex education are explained by the school counselor (Guru Bimbingan dan Penyuluhan) in a different classroom session. In addition, the religion teacher is responsible for disseminating the moral values in a religious study.

Another finding is that the most dominant of the three educational dimensions is the affective domain. Yet, this domain is the part that is missing in the current sex education in the high school biology subject. Currently, the reproductive health topic only poses four educational objectives: two in the cognitive domain and two in the psychomotor domain, without any effective objectives. Moreover, the psychomotor learning objectives are not directly

related to skills such as refusing to engage in sexual relations or refraining from premarital sex but making posters regarding reproductive organs or the like.

There is no synergy between the three domains of educational objectives in the implementation of sex education in public high schools. This would reduce the effectiveness of sex education. The current curriculum does not share information about reproductive health (cognitive domain) along with moral values regarding premarital sex, self-respect, and respecting others (affective domain). In addition, there are no opportunities for the students to practice how to refuse an invitation to sexual advances (psychomotor domain).

### **Future Directions**

Since effective learning results from three instructional domains: cognitive, affective, and psychomotor, the government needs to present sex education as a special module that comprises three educational learning domains, separate from the biology subject. The writer suggests a special one-day sex education session during junior high and high school student orientation day that covers cognitive, affective, and behavioral objectives. Cognitive objectives are: (1) knowledge of reproduction organ and pregnancy process; (2) knowledge of sexual diseases; (2) impact of the sexual relationship

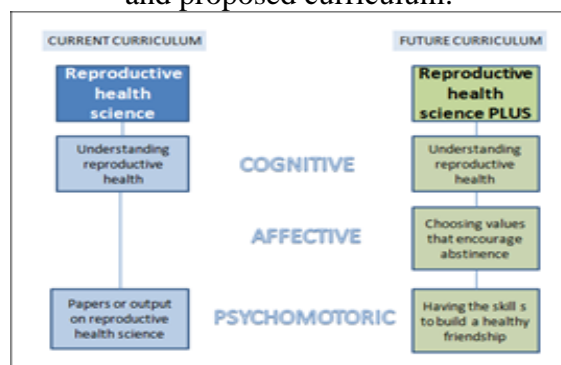
on mental and emotional health; (4) impact of the sexual relationship on future marriage; (5) ability to analyze situations that may lead to sexual encounters. Affective objectives are: (1) valuing self; (2) instilling the courage to say “no” to premarital sex; (3) encouraging students to have a purpose in life; (4) respecting others; (5) building a responsible attitude towards their future. Behavioral objectives are: (1) to build the ability to answer peer pressure to have sex; (2) to design a plan to manage sexual arousal when it happens to avoid premarital sex; (3) ability to build healthy friendships.

As the affective domain is the most dominant dimension in the implementation of sex education, it is necessary to emphasize this dimension to ensure that effective educational objectives are more strongly present in the implementation. This can be achieved in several ways, such as: (1) making sex education interesting for teens through various teaching methods aside from one-way communication from teacher to students, and by using methods such as discussions, peer testimony, role-playing, games, movie time, and so on; (2) Affective educational objectives which include building up motivation for choosing abstinence. As friendship and peer pressure have become the primary influence in teens' lives, building a community of teens who choose absti-

nence is essential. Another way is to choose a teen celebrity as an ambassador of abstinence to relay the message to the teens across Indonesia.

More importantly, there is a need to reform sexual education in Indonesia, starting with the foundational issue of changing the purpose of sex education from teaching the reproductive health topic to encouraging teens to keep their purity. Thus, there will be a significant adjustment in learning objectives involving the cognitive, affective, and psychomotor domains. The following is proposed sex education or reproductive health topic to be taught in school. The title of the subject would be “reproductive health science plus,” indicating that there are additional objectives and issues to be covered more than just reproductive health science. However, since sex is associated heavily as a taboo subject in Indonesia, it is better not to use “sex education” or “Pendidikan seksual” as the title as it might face opposition.

Diagram 1: Comparison of current curriculum and proposed curriculum.



In the cognitive domain, the objective is for the students to understand reproductive health, including various risks of premarital sex, both physically and psychologically. For the affective domain, students are encouraged to choose abstinence by instilling moral values, responsibility, and respect. For the psychomotor objective, the students are trained in the skills to build healthy friendships.

## CONCLUSION

Sex education is not about making babies or how to perform sexual acts. It is more than just discussing the biological aspect of humans' reproductive system. Sex education instills values, builds character, and shares essential information so that teens can grow and fulfill their potential by avoiding the detrimental impacts of premarital sex. The current sex education taught in biology class is missing the affective domain: the moral and mental motivation to stay pure and avoid premarital sex. It also needs to reform the psychomotor goals from producing posters or other output on reproductive health to building the skill to form a healthy friendship and refuse to engage in an invitation to premarital sex. Thus, sex education needs to be taught as a separate module that consists of these three instructional goals: cognitive, affective, and psy-

chomotor, rather than as a part of the biology class subject.

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