

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 Definition of Character Education

Education and character are two words that have a deep relationship. Etymologically, "education" comes from the Latin word "educare," which means "to train or tame and fertilize," which is a process to help mental maturation that leads to better character changes, while "character" means "nature" or "character," which is a value possessed by humans through the form of their attitudes and behavior. Character education plays an important role in forming students into responsible, ethical, and insightful individuals. Character education is not just about teaching students about what is right or wrong, but also about helping students develop habits and values that will guide their decisions throughout life. Inspired by Aristotle's virtue ethics, character education encourages students to consistently make good choices, reinforcing positive behaviors until they become second nature.

However, effective character education does not happen by coincidence but requires a structured and deliberate approach. (Berkowitz & Bier) in their research, elaborated six key principles to realize effective character education, including priority, relationships, intrinsic motivation, modeling, empowerment, and developmental pedagogy. This means that schools should make character education a priority, build strong relationships between teachers and students, motivate students from within rather than relying on external rewards, and ensure that teachers model the behaviors they want to instill and also show that when character education is well integrated into school life, it not only improves moral reasoning but also academic performance and social skills. (Brown, 2022) states that structured character education programs have a statistically significant impact on student behavior, helping them become more engaged and responsible learners. Although there are some challenges in measuring its long-term effects, (McLoughlin & Oldham, 2025) argue that character education remains important tool for forming ethical leaders and responsible citizens in a changing world.

It can be concluded that character education is an important aspect in forming individuals who are not only academically intelligent but also have strong moral values. Through a structured approach, character education can help students develop healthy relationships, intrinsic motivation, and a learning environment that supports moral development. In addition to improving behavior and social skills, character education also contributes to students' academic achievement.

2.1.2 Character Education in *Kurikulum Merdeka*

According to Rifa et al. (2022), cited in (Taqwallah, 2024), *kurikulum merdeka* is a curriculum that allows schools to explore their potential based on their facilities, inputs, and resources, as well as giving teachers the freedom to present essential and critical knowledge. The *kurikulum merdeka* is an Indonesian education system designed to provide a more flexible and student-centered approach. As explain by ((Akbar et al., 2023), the *kurikulum merdeka* is not just an update but part of an effort to modernize education so that students have skills that are relevant to the world of work and future global challenges. In addition, the *kurikulum merdeka* also places character education as an important part of shaping students' discipline and moral values, where students are given more freedom in their learning process but still within a framework that encourages responsibility, cooperation, and discipline.

Character education in the *kurikulum merdeka* aims to form students into individuals with character, discipline, and strong moral values. As says by the postgraduate of UIN Syahada that the independent curriculum is designed to produce students who are not only academically intelligent but also have a strong and positive character. This is supported by (Anam, 2024), that this *kurikulum merdeka* is designed to build student character based on the Pancasila Student Profile, which emphasizes six main aspects, namely faith and devotion, global awareness, cooperation, independence, critical thinking, and creativity. Unlike the rigid traditional learning methods, *kurikulum merdeka* gives teachers the freedom to incorporate these values into lessons and daily activities. As (Fuadi & Rohmah, 2023) explain, this approach helps create a school environment that fosters ethical behavior, responsibility, and a strong sense of national identity.

One of the biggest focuses of this curriculum is teaching students about discipline in a way that feels natural and meaningful. (Mursak et al., 2024) point out that discipline is encouraged not through strict rules, but through daily habits and school culture. Simple routines such as praying together, working on group projects, and practicing independence help students develop respect, integrity, and perseverance (Anam, 2024). (Mursak et al., 2024) shows that when students engage in character-building activities alongside their academic studies, they naturally develop a stronger sense of responsibility and self-discipline.

Another important aspect of the *kurikulum merdeka* is to foster independent learning. As (Alstra & Susanti, 2024) explain, this approach helps students take ownership of their education by allowing them to learn at their own pace with teacher guidance. Schools using this curriculum report that students are more engaged and show greater moral awareness, especially when they have the opportunity to collaborate and reflect on their learning. By integrating character-building practices into the curriculum, *kurikulum merdeka* ensures that students not only achieve academic success but also grow into responsible, disciplined individuals who contribute positively to society.

Thus, character education in the *kurikulum merdeka* is not just an academic framework but a way to form students into individuals with character, discipline, and morals. Discipline is not enforced through strict rules but nurtured through daily habits and meaningful routines. At the same time, independent learning encourages students to take ownership of their education, fostering a deeper engagement with their studies and moral development. Ultimately, *kurikulum merdeka* prepares students to become members of society who are not only academically successful but also ethical, disciplined, and responsible.

Ramadhan (2023) in (Alstra & Susanti, 2024) highlighted that the *kurikulum merdeka* gives students the freedom to learn in the way that suits them best. By making learning tools more effective in daily lessons and practical projects, *kurikulum merdeka* helps students develop essential skills while strengthening the Pancasila Learner Profile. This approach not only prepares them for exams but also equips them with practical abilities that they will need in the real world. Similarly, Masiri (2021) in (Alstra & Susanti, 2024) emphasizes that Kurikulum

Merdeka also benefits teachers and schools by giving them the flexibility to be creative in their teaching methods.

2.1.3 Implementation of Character Education at SMP Negeri 3 Bawolato

The implementation of character education at SMP Negeri 3 Bawolato is carried out through policies and programs integrated with project-based learning and activities. This is in line with the principles of the Pancasila Student Profile, which aims to form students who believe and fear God Almighty, work together, reason critically, are creative, innovative, and independent, and have global diversity.

a. School Policies on Character Education

As part of the strengthening efforts in forming students' character, SMP Negeri 3 Bawolato sets various policies that are oriented towards the habituation of moral, ethical, and disciplinary values, among others:

- 1) Integration of character education in subjects, such as in the English Teaching Module, where students not only learn language skills but also develop attitudes of responsibility and cooperation through educational poster-making projects.
- 2) Implementation of discipline and cleanliness, such as punctual attendance, the use of uniforms according to the rules, and the obligation to keep the school environment clean through class picket activities.
- 3) The application of project-based learning (PBL) to build the character of cooperation and independence in completing tasks.

b. Character Education Program at SMP Negeri 3 Bawolato

The implementation of character education is carried out through various programs that support the formation of students' attitudes of discipline, responsibility, and social care, including

1) Religious Program

To instill religious values and spirituality, the school organizes various activities, such as prayer together before and after learning and implementation of public worship, which is carried out every month.

2) Discipline and Responsibility Habituation Program

Character education is also instilled through positive habits, such as a class picket system to instill awareness of the cleanliness of the school environment, implementation of a strict attendance system where students who arrive late are given sanctions as a form of learning discipline, and implementation of local culture-based projects, such as in the Local Wisdom Project Module, which encourages learners to take responsibility for learning, processing, and presenting traditional Nias foods, such as *Lafeo* and *Gowi Nifufu/Nitutu*.

3) Extracurricular Activities as a Facility for Character Strengthening

Schools provide various extracurricular activities to instill character values, including scouts to train discipline, independence, and leadership; OSIS (Intra-School Student Organization) as a forum for developing leadership and cooperation skills; and local culture-based projects.

The agreements and consequences between students and teachers in the classroom at SMP Negeri 3 Bawolato include

a. Agreements

- 1) Come on time, except when there is a special/urgent situation.
- 2) Must bring complete school supplies independently.
- 3) Respect teachers and classmates.
- 4) Not talking when the teacher explains.
- 5) Raise your hand to ask permission first if you want to speak.
- 6) Not allowed to bring handphones except with the permission of the teacher.
- 7) Completing assignments and homework given according to the deadline.
- 8) Maintain the cleanliness of the class and class facilities/mobiles.
- 9) Not eating in the classroom, except for special conditions.
- 10) Use polite language.
- 11) Not scribbling on desks or walls.
- 12) Respect different opinions.

- 13) Avoid bullying.
 - 14) Not cheating or cheating during exams.
 - 15) Following the school dress code.
 - 16) Not sleeping during the teaching-learning process.
 - 17) Avoiding physical fights and resolving conflicts peacefully.
 - 18) Obeying the rules related to class pickets that have been agreed upon together.
 - 19) Not leaving the class without permission, except when there is an urgent need.
 - 20) Respect class time.
 - 21) Send a letter of permission to be absent from class if unable to come to school.
 - 22) Follow the KBM process well.
 - 23) Not using abusive or foul language.
 - 24) Not allowed to hit the table in the classroom.
 - 25) If the class is empty, the class administrator reports to the picket teacher immediately.
- b. Consequences
- 1) Received a verbal warning.
 - 2) Perform additional picket duty.
 - 3) Performing social activities that are beneficial to the school making a written report on misconduct.
 - 4) Confiscation of phone until a certain period of time gets a summons to parents first, second, and third, and a letter of return to parents if it does not heed all forms of guidance or reprimand given.

2. 1.4 Student Character of Discipline

a. Definition of Discipline

Students' discipline character is a comprehensive set of behavioral traits and attitudes that shape students' approach to learning, personal development, and social interactions in an educational setting. Thompson et al. (2024) describe student discipline character as the ability to maintain a structured routine, meet deadlines, follow established rules, and demonstrate reliability in

academic commitments. This includes coming to class on time, completing assignments on time, and actively participating in learning activities without external pressure. Another important aspect of this student's disciplined character is that of personal responsibility. This involves taking ownership of one's actions, taking responsibility for academic performance, and showing initiative in addressing areas for improvement, Wong et al., (2022). Disciplined students typically exhibit proactive behavior in seeking help when needed and taking steps to improve their learning experience and demonstrate a systematic approach to managing their academic workload, maintaining organized subject matter, and effectively balancing various academic and extracurricular commitments, Kumar et al., (2024). This social aspect of discipline character also involves respectful attitudes and behaviors towards peers and authority. Rodriguez et al., (2023) say that students with strong discipline character usually show courtesy in their interactions, follow institutional protocols, and contribute positively to the learning environment. They show respect for classroom rules, school property, and the rights of others in the educational community and consistently demonstrate honesty in their academic work, maintain integrity in grading, and demonstrate ethical judgment in their decision-making processes, Anderson et al., (2023).

Discipline is important for humans to have in order to create other good character values. This discipline character is very important to instill in students so that they can understand the values of the behavior they do. In the world of education, discipline is defined as attitudes and behaviors that obey the rules, are on time, and are responsible for their duties or work. Daryanto (2020) emphasizes that discipline is not just following the rules but also showing dedication to one's goals and standards, which encourages good behavior and academic achievement. Discipline is the ability to comply with applicable norms, guidelines, and regulations and is important for creating a positive learning environment, as it allows students to take responsibility for their actions and decisions. Discipline can also be considered a form of self-regulation in which students learn to manage their emotions and make decisions that advance their academic goals, Hidayatullah (2023).

In conclusion, students' discipline character play an important role in forming a student's academic journey and personal growth. It's more than just following the rules but also developing habits that help them stay committed, fulfill their responsibilities, and be accountable for their actions. When students learn to manage their time, respect deadlines, and stay accountable, they not only perform better in school but also build a strong foundation for life. Discipline fosters respect, responsibility, and perseverance, creating a positive learning environment where students can thrive.

Students will be called disciplined if they fulfill the existing indicators. The indicators possessed by disciplined students include time discipline and discipline of action. Time discipline is students who complete assignments on time, do not skip class hours, and obey the rules and instructions of the teacher. Meanwhile, discipline of action is students who obey the rules and obey the teacher's instructions, Jainuddin et al., 2020, cited in (Tantu et al., 2023). Also mentioned by Rachman et al., (2016), cited in (Tantu et al., 2023) which states that disciplined students are students who attend lessons on time, complete assignments honestly and on time, use clean and neat school uniforms, follow teacher instructions well, and participate actively individually and in groups. Therefore, it can be concluded that indicators of student discipline at school are students who complete assignments on time, do not skip class hours, obey the teacher's rules and instructions, and attend lessons on time.

b. Types of Discipline

There are several types of disciplines' characters that put forward by Prihastanti, et al. (2023) & (Telaumbanua et al., 2024), namely:

1. Self-Discipline

Self-discipline is the ability to control one's actions, emotions, and thoughts in pursuit of long-term goals. Self-discipline requires the ability to resist short-term temptations and distractions in favor of future rewards. For example, a person with strong self-discipline might choose to study for an exam rather than go out with friends, understanding that the effort put in will result in better academic results.

2. Social Discipline

Social discipline refers to the ability to behave appropriately in social situations. Social discipline involves understanding and adhering to social norms, such as politeness, respect, and consideration for others. This form of discipline is essential for building and maintaining relationships, as it enables individuals to interact positively and contribute to a harmonious society.

3. Academic Discipline

Academic discipline involves commitment to educational responsibilities and effective management of time and resources to achieve academic success. Social discipline includes developing study habits, staying organized, and staying focused on lessons. For example, students who have academic discipline will create a study schedule, prioritize assignments, and seek help when needed, which will ultimately enhance their learning experience.

4. Emotional Discipline

Emotional discipline is the ability to manage and regulate one's emotions constructively. It involves recognizing one's feelings, understanding their impact, and responding to them in healthy ways. This type of discipline is related to emotional intelligence, which helps individuals cope with stress, communicate effectively, and resolve conflicts. For example, someone with emotional discipline may take a moment to breathe and assess the situation before reacting angrily.

5. Moral Discipline

Moral discipline involves adherence to ethical and moral principles. This discipline requires individuals to make decisions based on their values and beliefs, even in the face of challenges. This type of discipline fosters integrity and accountability. For example, someone who practices moral discipline may refuse to cheat on an exam, valuing honesty over the temptation to seek an easier path.

6. Physical Disciplines

Physical discipline relates to maintaining one's physical health through consistent exercise, balanced nutrition, and healthy lifestyle choices. It entails a commitment to a fitness routine, meal planning, and overall wellness. For example, a person practicing physical discipline might set goals to exercise regularly, prepare nutritious meals, and prioritize sleep, thereby improving their physical and mental health.

2.1.5 The Factors of Students Discipline

Student discipline does not just appear out of nowhere but is influenced by various interrelated factors, ranging from the student's personal character and family environment to the dynamics at school and in the community. Understanding these factors is very important so that schools and teachers can develop the right approach to fostering discipline.

1. Individual Characteristics of Students

Every student has different personalities and psychological conditions, and these form the basis of their behavior at school. Factors such as self-awareness, learning motivation, and how students perceive themselves play a significant role in determining how disciplined they can be. (Zacky et al., 2025) highlight that low motivation can be the main trigger for students' lack of discipline in learning. Additionally, (Yulianti et al., 2024) show that a lack of self-control and sense of responsibility also contribute to the emergence of undisciplined behavior. When students have low self-esteem, they tend to find it difficult to follow rules or feel responsible for the obligations given to them.

2. Family Environment

The family is the first place where children learn about values, norms, and discipline. Parental parenting styles, such as how they enforce rules and pay attention to their children's activities, greatly influence how students behave at school. (Syaikhoni et al., 2021) explain that parents' indifference or negative attitudes toward their children's disciplinary behavior can increase the school's efforts in

educating students. Consistent support and good communication between parents and children are key to enabling students to learn to be responsible for their obligations.

3. School Environment

School is not only a place of learning but also a place for character formation. How schools enforce rules, the leadership style of the principal, and the teaching methods used by teachers all influence students' disciplinary attitudes. For example, research by (Oktaviani et al., 2024) shows that clear and fairly enforced school rules have a significant impact on student behavior. Additionally, strong school leadership fosters a positive disciplinary culture (Yulianti et al., 2024).

Teachers play a crucial role in this regard. They are not only educators but also mentors and guides for students' behavior (Nuraisah et al., 2023) emphasize the importance of reward and punishment strategies in enforcing discipline in an educational manner. Rewards provide positive motivation, while rational punishments can serve as meaningful learning experiences. Research by (Qonita et al., 2022) reinforces this by showing that appropriate punishment can improve students' disciplinary attitudes in elementary schools.

A comfortable school environment, good teacher-student relationships, and extracurricular activities also play a supportive role. (Alam & Fitriatin, 2024) note that activities like scouting can be an excellent medium for instilling disciplinary values in an enjoyable way. Equally important, adequate school facilities also create a better learning environment. Conversely, overcrowded or uncomfortable classrooms can trigger indiscipline (Yulianti et al., 2024).

4. Social Environment and Technology

Outside of school and home, students are also influenced by the broader social environment. The community where they live, their peers, and access to digital technology also form student behavior. Support from the community for positive values is very important so that students do not lose their way. However, as stated by

Ngwokabuenui (Yulianti et al., 2024), indiscipline does not always originate from within the student or school but can also be triggered by negative influences in their social environment.

In addition, rapid technological advances bring their own challenges. Uncontrolled use of gadgets often disrupts concentration and reduces student discipline. Rahmawati (2020), in (Oktaviani et al., 2024) shows that gadget education can be a factor in low discipline, especially if it is not balanced with proper education and supervision.

5. Punishment and Reward

As explain by (Qonita et al., 2022), punishments that are given gradually and are educational in nature can help students recognize the boundaries of acceptable behavior. The imposition of sanctions, such as reprimands or additional tasks, is intended to foster awareness and deter students from violating rules. Meanwhile, (Siti Nuraisah et al., 2023) also stated that the simultaneous application of rewards and punishments can be a fairly effective strategy to improve student learning discipline. This is given with the aim of encouraging positive behavior, such as arriving on time or completing assignments. Their research shows that rewards can motivate students externally, so that they are encouraged to be more obedient to the rules and actively participate in the learning process.

However, this is not the only factor that can influence student discipline, but is also supported and based on the awareness of the students themselves.

2.1.6 The Role of Teacher for Student

a. Definition and the Importance of Teacher

Teachers are people who teach in schools and are responsible for conveying knowledge to students as well as advising and directing them towards better behavior. As professional educators, teachers have the primary responsibility to instruct, guide, train, assess, and evaluate students. Thus, teachers have professional expertise in facilitating the process of transferring knowledge from learning resources to students.

The following are several definitions of teachers according to the opinions of experts written by Wiyani (2015:27-28) cited in Ananda, (2019), as follows:

- 1) Ahmad Tafsir: A teacher is a person who is responsible for the ongoing process of growth and development of students' potential, both cognitive potential and psychomotor potential.
- 2) Imam Barnadib: A teacher is anyone who deliberately influences others to achieve maturity.
- 3) Ahmad D. Marimba: A teacher is a person who bears the responsibility to educate, namely an adult human being who, because of his rights and obligations, is responsible for the education of the educated person.
- 4) Hadari Nawawi: A teacher is a person whose job is to teach or give lessons in class or at school.
- 5) Ahmad Janan Asifuddin: A teacher is a person who teaches and transforms knowledge and instills values in students.
- 6) Sutari Imam Barnadib: A teacher is anyone who deliberately influences others to achieve maturity.
- 7) Zakiah Daradjat: The teacher has implicitly, willingly accepted and assumed the responsibility for education, which rests on the shoulders of parents.

Based on the definition from the opinions of experts above, it can be concluded that teachers are professional educators who are responsible for facilitating the growth and development of students' cognitive and psychomotor potential and play an important role in guiding and influencing students towards maturity, educating them, and instilling values. They bear the responsibility to impart knowledge and ensure the educational process, receiving the same duties as parents

Teachers have a very important role, they act as role models for students, demonstrating admirable attitudes, beliefs, and actions. Teachers help students learn the value of discipline and responsibility by setting clear standards for behavior and academic success. They offer direction and assistance, assisting students in overcoming obstacles and making wiser decisions. To create disciplined and broad-minded people, teachers also instill values such as

honesty, integrity, respect, and empathy. Teachers can foster self-discipline and organizational skills in their students by creating a well-structured classroom environment. By giving students opportunities to practice self-control and independent decision-making, teachers also help them accept responsibility for their actions and cultivate self-discipline. Martinez and Thompson (2023) emphasize that teachers play a fundamental role in forming students' cognitive, social, and emotional development. Their research shows that effective teachers contribute to approximately 30% of the variance in student achievement, making them the most influential school-based factor in student success. Teachers not only impart knowledge but also act as mentors who guide students through their educational journey. Anderson et al. (2023) also highlighted that teachers have an important role in character formation, namely where they are referred to as role models who show positive and professional attitudes and good character values. Therefore, this also supports that the relationship between teachers and students is very important to instill in schools.

b. The Role of Teacher

There are two roles that teachers have, according to Maemunawati, et al (2020), namely:

1) Teachers as educators and instructors

Teachers have the responsibility to guide and foster mature attitudes in students. As formal educators, teachers also function as figures and role models for students and the surrounding community. To be a good teacher, a teacher needs to have certain personality standards, including responsibility, authority, independence, and discipline. Responsibility means that teachers must be able to account for their words and actions, both in social and legal contexts. Authority reflects that the presence of teachers must be respected because of their integrity, capability, and credibility. Independence means that teachers must be able to resolve problems that arise among students or between students and the community independently and wisely. Discipline requires teachers to keep promises and comply with the rules and norms that exist in their daily lives.

2) Teachers as models and role models

Teachers act as models and role models for students, who want a teacher who can set a good example. The attitudes and behavior of teachers, parents, and community leaders must reflect values and norms that are in line with character values. Apart from conveying knowledge, teachers must also be role models for all their students by providing positive examples so that students and the community can emulate them. In this way, teachers become a reflection of student behavior and society as a whole.

Based on the statement above, it can be concluded that teachers have an important role as educators and instructors and as models and role models for students. As educators, teachers are responsible for guiding students towards maturity, with personality standards that include responsibility, authority, independence, and discipline. As role models, teachers are expected to reflect character values through their attitudes and behavior so that they become good examples for students to emulate. Thus, the teacher's role is not only limited to conveying knowledge but also in forming students' positive character and behavior.

2.2. Relevant Research

In previous studies that have examined the role of teachers in forming student character, especially in forming discipline attitudes, provide a theoretical basis that supports this research. The theoretical foundation in previous studies highlighted the role of English teachers in forming students' disciplinary character in the *kurikulum merdeka* of SMP Negeri 3 Bawolato.

Some previous studies that are relevant to this research, are the research conducted by (Hulu, 2024) entitled “Teachers’ Efforts in Building Students’ Character in English Learning at the Eighth Grade of SMP Negeri 2 Hiliduho” in the research said that English teachers have a great contribution in forming student character, especially in the attitude of discipline which is carried out through the attitude of punctuality, responsibility, and mutual respect in learning activities and modeling. This attitude will certainly affect the character of students to come on time, be responsible for tasks and maintain a polite attitude during learning. This research does not mention the *kurikulum merdeka*, but its focus on English language learning and

character education at the junior high school level makes this research relevant. In addition, previous research that is relevant to this research is the research conducted by (Arto & Wakhudin, 2021) entitled “The Role of Teachers in Improving the Discipline Character of Students” which suggests that the teacher acts as an educator, advisor, instructor and model in forming students' discipline character by means of habituation and modeling behavior. Although this research has a different level of application, namely in elementary school, the concept of research that emphasizes the role of teachers in forming student discipline is very relevant as a theoretical basis for this research. And other relevant research that supports this research is the research conducted by (Lase et al., 2024) which is entitled “The Role of the English Teachers in Strengthening Character Education at the Eighth Grade of SMP Negeri 1 Lahewa Timur in 2023/2024” which highlighted how the role of English teachers acts as character learning designers, models and instructors. The findings reveal that discipline and other character values such as honesty, responsibility and hard work are integrated in lesson plans and learning activities. This research is not in the context of an *kurikulum merdeka* but aspects of English language learning for junior high school are relevant to this research.

The three previous studies generally emphasize the importance of the teacher's role in forming student character, especially in terms of student discipline. However, there is no specific research that examines the role of English teachers in *kurikulum merdeka* at SMP negeri 3 bawolaato. Therefore, this research was conducted to fill this gap and provide an overview of how English teachers play a role in forming students' discipline character.

2.2 Conceptual Framework

This conceptual framework provides the structural overview of the research. This research explores the role of English teachers in forming the students' discipline character in *kurikulum merdeka* at SMP Negeri 3 Bawolato. Taking the title of this research began with the researcher who had conducted observations of students and teachers in the classroom. From there, the background of the problem was established by identifying key gaps in research and theory, examining real-life challenges, and highlighting the novelty and expectedness of this research.

To gain deeper insights, this research utilizes a qualitative descriptive approach, focusing on real-life experiences and interactions in the classroom. Data was collected from English teachers and seventh-grade students using a combination of observations using checklist tools and interviews. This research builds on existing knowledge about character education and factors that influence student discipline. The main focus was to understand how teachers play a critical role in forming students' character.

The research process involves collecting, analyzing, and interpreting data in a structured way. Information was first organized and reduced, then displayed for clarity, and finally, conclusions were drawn to provide meaningful insights. Ultimately, this research aims to highlight the role of English teachers in forming students' disciplinary character at school.

The conceptual framework in this research is described as follows.

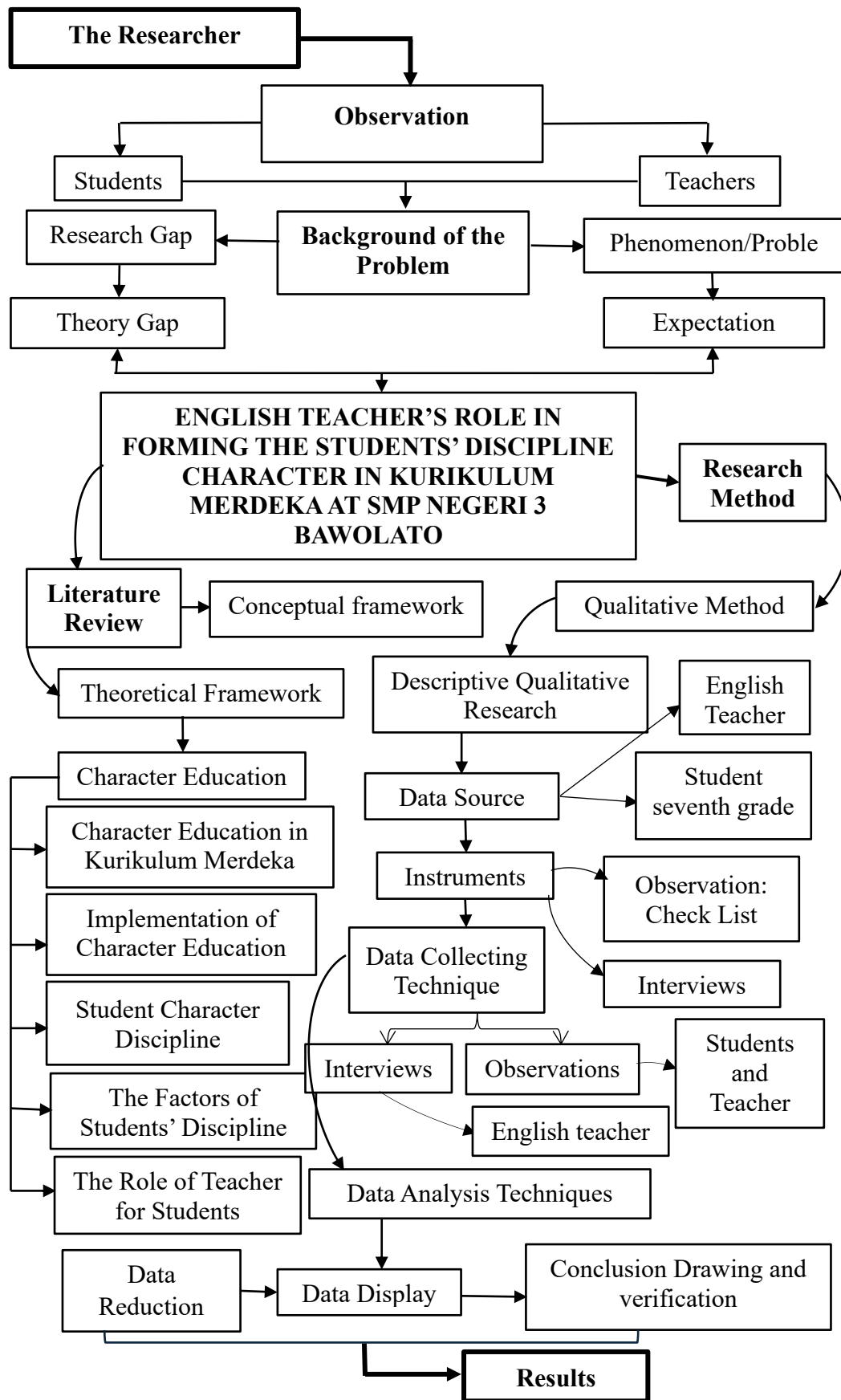


Figure 1 Conceptual Framework