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Research on Diversified Teaching Methodologies for Junior High-School Education: Practical Challenges and Optimized Implementation Paths

Tingting Liu *

Jilin No.15 Middle School, Jilin, Jilin, China

*** Corresponding author Email:** 942421659@qq.com

Abstract: Junior high school is an important transition stage between primary school and senior secondary school. With the current educational reform, teachers need to change from knowledge-oriented cramming to ability-oriented teaching. Different teaching methods have many problems in actual teaching environments, such as unsuitable classrooms, large differences in student abilities and lack of practical guidance for teachers. Based on the study of literature and simulation of classroom situations, this paper introduces stratified teaching, small-group cooperative learning, smart-classroom teaching and performance-based assessment. Identify the actual implementation problems and put forward practical improvement plans for lesson planning, class interaction and homework. Therefore, not all teaching methods are suitable for all kinds of classrooms. Given different demands from students and other constraints at school, teachers should flexibly choose multiple teaching methods rather than using only one type. The purpose of this study is to offer some ideas for improving classroom teaching and easing the adjustment of teachers and students in junior high school.

Keywords: Junior High-school Education; Teaching Methodology; Stratified Teaching; Student-centered Instruction; Classroom Practice.

1. Introduction

Junior-high-school students exhibit highly individualized cognitive development. By Grade Seven, there are obvious differences in learning motivation, self-efficacy and knowledge-absorption ability. Traditional unified teaching has the same content, homework and test for all students; therefore, it cannot meet the varied learning needs of different students—some are not challenged academically, while others find it too difficult. In light of the global educational revolution, teachers have begun to use various forms of individualised instruction, such as differentiated homework, small-group remediation, intelligent-classroom personalised learning, and process-oriented assessment, to promote the development of students' critical thinking. The above measures will help the students achieve their best and create inclusive classrooms.

Based on the above research, various forms of teaching can increase students' interest in learning and autonomy. However, the theory is not always applied in practice. Many teachers have been finding that lesson preparation is more labour-intensive now. Some of the teaching reforms are still in name-of-the-rosy stage. Some teachers blindly follow educational trends without considering the local situation and have thus achieved poor results.

Most of the above research has applied only one type of teaching method. Research on the rational selection, integration and adaptation of multiple teaching approaches for general junior-high-school classrooms remains insufficient. Most of the mixed-methods studies have been single-subject experiments, and there has been no cross-subject analysis of front-line teachers. Accordingly, this paper addresses three research questions: (1) What representative teaching methodologies are verified in modern junior-high-school education research? (2) What practical barriers restrict their daily-classroom implementation? (3) How can teachers adapt and combine multiple teaching approaches for real-world junior-high-school contexts?

Based on the collection and analysis of related educational documents, this paper will present some empirical results. Based on the records of simulated classroom observations of actual teaching, problems in implementation have been found and corresponding countermeasures have been taken. The focus of this paper is the application in classrooms, not theory. It should be pointed out that this study does not conduct new questionnaires or field experiments; all the evidence is based on published research.

2. Literature Review

Many scholars around the world have studied junior high school teaching models and provided theoretical support for this paper.

Performance-based assessment has become popular in general subjects and arts education as well. Yang has studied whether to grade art learning in secondary school based on final products [1]. Teachers should observe how students think, solve problems, and perform in class to foster creativity. Assessment criteria are too strict and will make young people afraid to try [3]. This process-oriented evaluation idea is also applicable to other junior-high-school subjects.

Stratified teaching is a type of student-centered teaching. According to Zhu's research on stratified English homework design, the basis is to address students' learning deficiencies by providing all sorts of tasks, goals and feedback [2]. Simply dividing homework by difficulty will not be effective. Teachers should know the circumstances of learning for different students and avoid grouping them by ability. [4]

With good organisation, small-group teaching can promote students' sense of physical self-worth and learning motivation positively, as shown in the controlled experiment by Liu and

others on junior high school PE students [5]. However, if the groups are not well-organised and tasks are not distributed fairly, some members may not participate. Organise group activities in advance and do not group students randomly.

Smart-Classroom technology has introduced some new ways for teachers to present teaching materials. Guo has conducted research on physics teaching and found that only hardware is insufficient. Over-reliance on multimedia may reduce valuable face-to-face teacher-student communication. Technology should serve teaching and learning, not the other way around [6]. Copying high-end digital solutions in resource-poor schools is not feasible, so the application of technology should be in line with the local teaching situation.

Curriculum Design Should Be Appropriate for Adolescents' Cognition. Jia's mathematics-teaching research under the 1+3 training model stresses that junior-high-school teaching needs to consider students' future senior-high-school learning demands [7]. Short-term classroom activities cannot be separated from teenagers' long-term mental-development rules.

Some foreign studies have provided references. Sabah and Öztürk believe that the changes in teaching methods have caused stress and anxiety among teachers; thus, proper support needs to be provided [8]. Duong and Nguyen have investigated how to use technology in teaching for disadvantaged students and found that, unfortunately, without proper training and resources, it is not beneficial. Kim and others believe that educational activities should be in line with local conditions; therefore, they are not simply imported from abroad.

In short, all teaching methods have their own suitable circumstances and shortcomings. No single method will work for all junior high school classes. Teachers' choices of teaching methods should consider all the reasons listed here, as well as their own teaching abilities.

3. Practical Difficulties of Teaching-Method Implementation in Junior High-School Settings

According to the above analysis and simulations, diversified teaching faces four main difficulties in junior high school classrooms.

3.1. Formalised Implementation Replaces Substantive Reform.

Many teachers have only superficially learned about the new educational concept. Stratified teaching will have three grades of homework; the classroom goals and immediate feedback will remain the same. Teachers seldom set subgoals, organise time or establish assessment criteria for small-group activities. Therefore, some students are idle or only a few outstanding students complete the group work, and others do not participate. Only the end-of-term grades are taken into account; the learning journey of students at the school is ignored. Teaching-method innovation is only a show; no learning results have been achieved.

3.2. Ignoring Realistic Resource Constraints

Many teaching models described in academic papers presuppose ideal conditions: small-size classes, abundant digital equipment and adequate lesson-preparation time, which most ordinary junior-high-schools cannot satisfy. Some teachers mechanically copy smart-classroom modes from literature. Technical problems stop the class. Although the equipment is good, we are now too reliant on computers and tablets. Teaching reform in underdeveloped areas should keep the original teaching goals and not introduce too many links; ideal experimental-school models are not necessary.

3.3. Neglecting Teachers' Psychological Pressure and Capability Boundaries

New teaching methods have increased teachers' work; they now have to design differentiated learning objectives, organise diverse group activities and develop various assessment criteria. Work stress may cause anxiety in teachers. If many teaching-model reforms are introduced by the school at once and little training and support are provided, front-line teachers will probably implement them superficially. Teaching-method promotion should follow teachers' professional-development rhythm and pursue gradual, sustainable improvement rather than abrupt large-scale transformation.

3.4. Disconnection Between Teaching-Method Design and Adolescent Cognitive Characteristics

Junior-high-school students are in a special adolescent developmental stage. Some imported teaching designs mismatch their cognitive level. The goals of the group project are too general, so students cannot conduct independent research and waste class time. In-class activities and after-school homework are not coordinated. Junior-high-school teaching also fails to fully consider students' senior-high-school transition demands. Isolated grade-level teaching does not consider the continuity of adolescent cognition.

4. Optimized Paths for Junior High-School Diversified Teaching-Method Practice

Based on the above reasons, the following are some practical recommendations for teachers. The first is student-centred: Teachers should combine various teaching methods flexibly and not be bound by popular educational trends.

4.1. Clarify Practical Goals and Avoid Superficial Formalization

Teachers should set clear class goals before selecting a way of teaching. Stratified teaching should cover differentiation in classroom questions, group task distribution and feedback, not just homework. Teachers should apply differentiated instruction implicitly and avoid public ability-labeling of students. There should be specific sub-goals, time management and assessment criteria for the small-group learning. Teachers should observe the classes and address any group-work idleness or off-topic talk promptly. For performance-based assessment, teachers should observe students' thinking, exploration and adjustment processes during the activity, not only judge the final product.

4.2. Make Adaptive Adjustments According to Available Resources

Teachers should reasonably assess the class size, facilities and lesson preparation time. If the smart-class hardware cannot be fully guaranteed, then do not carry out full-process

digital teaching. Teachers can use some digital tools to supplement the lessons and keep some traditional teaching methods. Given the resource shortage, simplify the teaching plan to include only the necessary content and exclude the rest. The new way of teaching will add little extra work for teachers. Blindly imitating the practices of well-funded schools will not achieve good results. Adjust the Teaching Method According to Local Conditions.

4.3. Progress Step-by-Step and Relieve Teachers' Implementation Burden

Schools should not ask teachers to learn and apply too many new teaching methods at once. Teachers learn one method of teaching and then try the others. Teacher training should provide practical lesson-plan cases and guidance for solving classroom problems, not just theoretical knowledge. School administrators should pay more attention to teachers' mental health and reduce excessive formal-assessment pressure. A Reliable Educational Support System is better than quick, disjointed reform orders.

4.4. Match Teaching Design with Junior High-School Students' Cognitive Rules

Junior-high-school students need scaffolding support in inquiry-oriented and cooperative learning. Divide the open-ended task into a few small steps. Teaching Design should also consider the transition to senior high school and cultivate students' long-term thinking and study habits in this subject. In-class activities and after-school homework should be logically consistent. Stratified in-class teaching should be combined with differentiated after-school homework to create an ideal learning environment for all students.

5. Conclusion

Junior high school education has the goal of teaching students' course knowledge, developing their thinking and training good study habits. Stratified teaching, small-group cooperative learning, smart-classroom-supported teaching and performance-based assessment are all good new teaching methods. Each way has its own reasons for being chosen. The above ways cannot achieve the aim of teaching. Formalisation implementation, lack of funds, excessive teacher workload and mismatch with adolescent cognitive structure are all problems in educational reform.

Front-line junior high school teachers need to choose teaching methods that are appropriate for their subjects, students and school circumstances. The reform should be gradual, and the primary goal is to improve the students' actual learning conditions.

No new field data will be obtained in this paper. In the future, I will carry out field studies in local junior high schools to collect first-hand classroom data and learn how various teaching methods can be combined in different subjects.

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