

Small-Town and Rural Idaho Elementary Teachers' Desired Versus Current Use of Differentiated Instructional Practices

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Abstract: *As part of a 12-state nationwide study, elementary teachers in small-town and rural Idaho were surveyed regarding their actual use of differentiation versus their desired use of differentiation in the classroom across five teaching-learning behaviors: classroom expectations of students; student objectives; student evaluations; teacher communication and messages; and teacher objectives. The purpose of this research was two-fold: first to gather information about elementary teachers in rural and small-town Idaho and study that data individually; and second, to utilize the Idaho data in the nationwide study. This article discusses the results for the Idaho portion of the study, as well as the relation to trends emerging across other states in the study.*

Key Words: differentiation, rural education, elementary, constructivist teaching, instructional practices

Differentiated instruction is a term with which teachers are familiar, an approach with which many teachers agree, yet a practice which teachers often feel they have little time for or freedom to implement. However, often teachers have a misaligned understanding of differentiation, and may be consistently implementing some constructivist-based differentiation techniques without realizing it because they have not fully reflected on the various approaches to differentiation in relation to their practice (Polka, VanHusen, Young, & Minervino, 2016). Differentiation refers to the practice of implementing a variety of instructional techniques and lesson adaptations to meet the diverse learning needs of all students in the classroom, allowing students to construct knowledge in ways that work for them. This study contributes to a comprehensive nationwide study designed to encourage teacher recognition and appreciation of the differentiation techniques they are currently utilizing as well as encourage reflection upon how teachers could further implement constructivist differentiation strategies they would like to be using but currently are not.

IDAHO CONTEXT

Approximately one-third of Idaho's population lives in rural and small town areas (United States Department of Agriculture Economic Research Service [USDA-ERS], 2017). In 2015, Idaho school districts served populations that were 76.84% White, 17.24% Hispanic, 2.15% two or more races, 1.24% Asian, 1.22% Native American, 0.99% Black, and 0.31% Pacific Islander (Idaho Commission on Hispanic Affairs [ICHA]). However, some rural school districts have vastly larger concentrations of Hispanic student populations of 45-76% (ICHA, 2015).

The rural per-capita income in Idaho in 2015 was \$37,390, with an overall rural poverty rate of 16.5% and a 2016 rural unemployment rate of 4.0%. Agriculture – specifically dairies, cattle ranching, and farming – is the main economic driver of rural Idaho (USDA-ERS, 2017). The 23 districts participating in the survey had a range of 35-84% of students receiving free or reduced lunch, with an average of 52.23% of students qualifying (Annie E. Casey Foundation, 2017).

In 2015, the high school drop-out rate in rural Idaho was 13.3%, with another 29.5% of students stopping their education after graduating high school. There were 35.7% who went on to complete some college, but only 21.6% of students from rural Idaho actually completed a college degree (USDA-ERS, 2017). When compared to other states in the nation, Idaho ranks 49th in per-pupil funding, 50th in preschool enrollment, 41st in high school graduation rates, yet 13th and 23rd in eighth grade NAEP reading and math scores, respectively (US News and World Report, 2017). There is a discrepancy in Idaho between early student performance as compared to funding, services provided, statistical high school completion rates, and go-on rates. In addition, rural areas are often ignored by government when instituting new policies, procedures, and funding formulas, and by educational researchers (Bryant, 2010). While a substantial body of research exists supporting differentiated instruction in general, research focused on schools in small towns and rural areas overall is limited. Many teachers in rural and small town in Idaho often feel ignored by research, or feel that most research does not apply to their realities. For these reasons, rural and small-town Idaho was chosen as the sample population for this branch of the differentiation case study.

This study was conducted in Idaho in April through June of 2017. The sample population was comprised of general education elementary teachers from 34 elementary schools across 23 school districts. The schools were in small towns and unincorporated rural areas, and served populations fewer than 5,000. Some of the schools were one-room school houses in remote areas; some were K-12 schools in which only the elementary teachers were surveyed; some were traditional elementary schools. Teachers participated anonymously via the Qualtrics survey tool which is a software program for data collection. The link was sent three times via e-mail to the 289 general education teachers in the participating elementary schools. There were 140 responses received, for a 48% response rate.

RESEARCH BACKGROUND AND CONCEPTUAL FRAMEWORK

The Constitution of the State of Idaho declares, “The stability of a republican form of government depending mainly upon the intelligence of the people, it shall be the duty of the legislature of Idaho, to establish and maintain a general, uniform, and thorough system of public, free common schools” (Article IX, Sec. 1). While two-thirds of the population of Idaho live in urban areas, those urban areas account for a mere 3% of the land area of Idaho (USDA-ERS, 2017). This means approximately 97% of Idaho is inhabited by only one-third of its population.

Therefore, the State of Idaho is an overwhelmingly rural state, and by its Constitution has a responsibility to provide a thorough public education to students throughout the state, regardless of how remotely they may live. Rural schools are burdened with achieving all of this with fewer resources than urban schools (Bryant, 2010; Wu, 2017). This study focuses on teachers in many of those rural areas, from one-room remote schoolhouses to small towns of 5,000 or fewer.

In providing a thorough education to all students, teachers have been called upon for decades to provide appropriate differentiation in their classrooms for all students, from struggling to gifted learners (Polka, 2002; Danielson, 2007; Johnson, Collins, Duperes, & Johansen, 1991; Johnson, Musial, Hall, & Gollnick, 2014; Levy, 2008; Tomlinson, 2014; Wu, 2017). Constructivist-based differentiation in the elementary classroom can take many shapes and forms, such as: interest-based grouping; project-based learning; formative assessments that help the teacher gauge individual student knowledge and progress; technology integration to help students work at their own pace on some concepts; small-group instruction for specific skills at ability levels; allowing students choices in what they read; student-led discussion groups or literature circles; and providing a variety of assessment options (Levy, 2008; Tomlinson, 2014; Wu, 2017). Differentiation helps teachers reach each individual student and help them progress effectively through the learning cycle, as it is based on awareness of individual variances in student learning and includes the recognition of differences that impact student achievement, such as, "...ability level, learning style, ethnicity, gender, socioeconomic status, and so on" (Sternberg & Williams, 2002, p. 444). However, while most teachers understand the importance and recognize the value of differentiation, many may not conscientiously implement it into multiple aspects of their daily teaching (Ayers, 2008; Westberg & Daoust, 2003). Teachers in rural schools may have a more difficult time providing differentiated instruction to their students due to time constraints; scarce curricular and instructional resources, especially for higher-achieving students; a lack of professional development resources; and little instructional autonomy (Ayers, 2008; Westberg & Daoust, 2003; Wu, 2017).

Teachers typically are drawn to two diametrically-opposed schools of thought regarding differentiation. These opposing viewpoints are demonstrated in the conceptual framework that guides the nationwide differentiation study of which this research is a part. The framework, represented in Figure 1 and originally developed by Polka (2002), is represented by two contrasting poles, one which represents a teacher-centered approach and one which represents a learner-centered constructivist approach. The national research team conjectures that most classroom teachers' beliefs and practices lie somewhere in the middle of these two poles, and that their beliefs do not always align with their practices (Peace, Polka, & Mete, 2017; Polka et al., 2016).

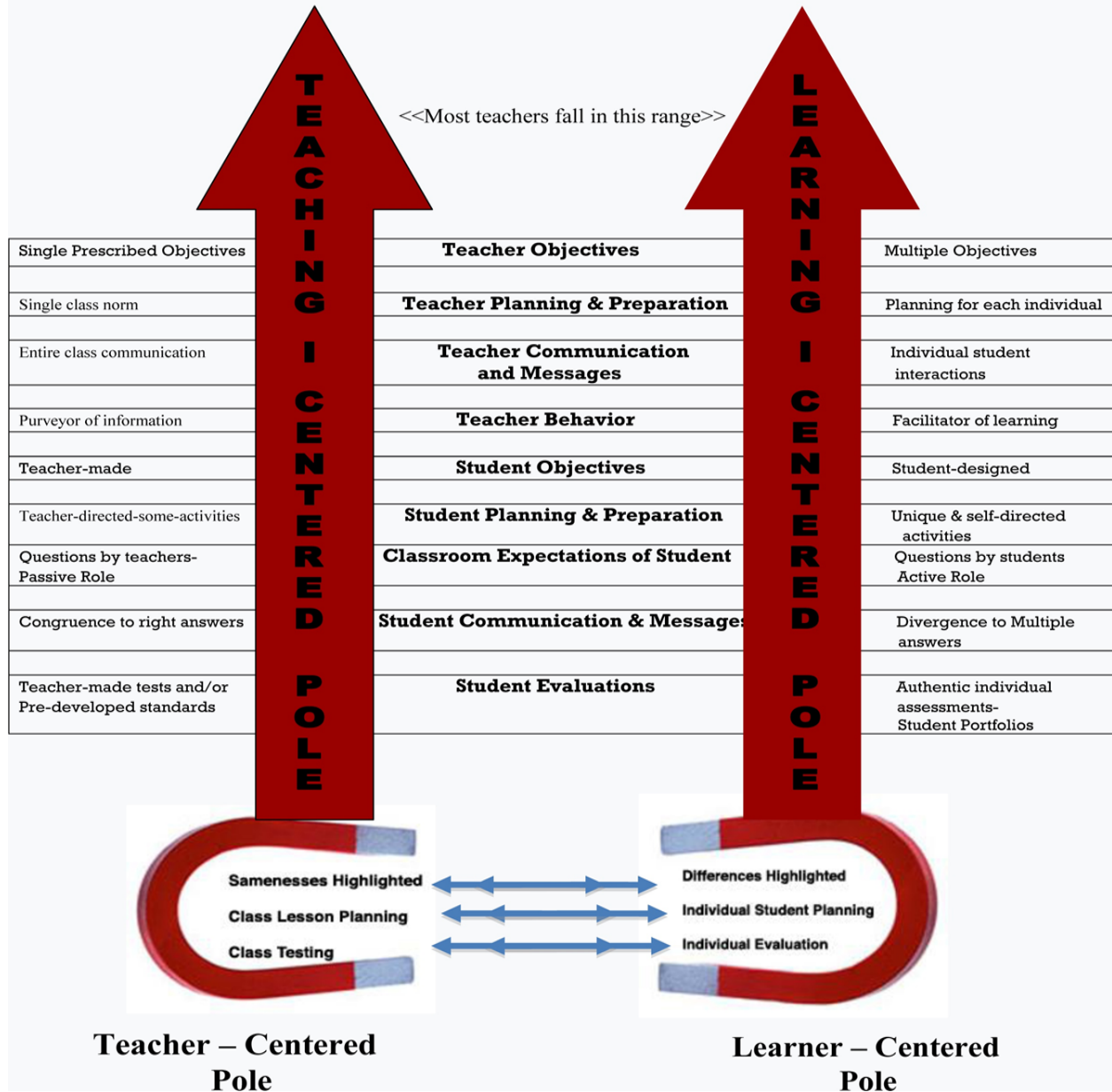


Figure 1. The teaching-learning polarity diagram (Polka, 2002)

The polarity diagram identifies the nine behaviors that Heathers (1967) originally associated with the teaching-learning process: 1) teacher objectives; 2) teacher planning and preparation; 3) teacher communication and messages; 4) teacher behaviors; 5) student objectives; 6) student planning and preparation; 7) classroom expectations of students; 8) student communication and messages; and 9) student evaluations. These nine teaching-learning behaviors and their significance as demonstrated in the classroom by teachers have been examined, scrutinized, and evaluated by multiple educational researchers, including: Brooks & Brooks, 1993; Danielson, 2007; Darling-Hammond, 1997; Eggen & Kauchak, 2001; Foote, Vermette & Battaglia, 2001; Marzano, Pickering & Pollock, 2001; Peace et al., 2017; Polka & VanHusen, 2014; Polka et al., 2016; Slavin, 2006; Subban, 2006; Tomlinson, 2014; Tomlinson, Brimijoin & Narvaez, 2008; and Tomlinson & Imbeau, 2011.

SURVEY INSTRUMENT

The instrument utilized for this research is the *Desired and Current Use of Constructivist Activities and Techniques* survey that was developed by a team of researchers at Georgia Southern University in 2007, which was designed to measure the difference between teachers' desired and actual frequency of use of constructivist differentiation techniques (Polka, 2010). The survey consists of three parts:

- Part I — Demographic data. Collects information about participants' current educational contexts and teaching experience. (The demographic question list was modified slightly to fit the Idaho context.)
- Part II — Frequency of instructional use and desired state. The discrepancy portion, used to identify participants' desired frequency of use of constructivist differentiation techniques versus their actual use. This section consisted of 25 Likert-scale statements derived from the nine teaching-learning behaviors in Figure 1, each rated by participants on the rate of both desired and actual use. The questions are listed in Table 2 with the conceptual framework category to which they relate (Polka et al., 2016).
- Part III — Personal responses. The section in which participants could respond to the following two open-ended questions: 1) What do you feel needs to be done to make individualized instruction and customized learning or differentiation practices more common in today's classrooms? and 2) Please provide any additional comments you may wish regarding individualizing instruction and customizing learning, especially in rural/small-town Idaho.

The survey instrument is based on decades of research, as previously stated, and was found to have a high reliability when assessed via Cronbach's Alpha (Coladarci, Cobb, Minium, & Clarke, 2008): Questions 1-25 Desired R=.942; Questions 1-25 Actual R=.922 (Polka et al., 2016). Thus, the utilization of this instrument to collect information provided a valid and reliable representation of where Idaho rural and small-town teachers function on the Teaching-Learning Polarity Diagram (Figure 1).

RESEARCH RESULTS

Teachers from 34 rural and small-town elementary schools across 23 districts in Idaho participated in the study in late spring of 2017. A total of 289 teachers from participating districts were contacted via e-mail to participate in the anonymous survey. The survey was conducted online using the Qualtrics survey program. There was a two-month data collection window that spanned from the end of the school year to the beginning of summer vacation. Teachers were e-mailed the original request, a follow-up, and a final reminder request shortly after the school year had concluded. A total of 140 useable responses were received, for a 48.4% response rate. The results are presented in the following tables.

Table 1.

<i>Demographic Data</i>					
<u>Teaching Experience</u>	<u>Number</u>	<u>Percent</u>	<u>Present Teaching Level</u>	<u>Number</u>	<u>Percent</u>
0-5 Years	43	30.7%	Primary (Pre-K through 2nd Grade)	78	55.7%
6-10 Years	34	24.3%	Intermediate (3rd through 6th Grade)	62	44.3%
11-15 Years	11	7.9%	<i>Totals</i>	<i>140</i>	<i>100%</i>
16-20 Years	17	12.1%			
21+ Years	35	25.0%			
<i>Totals</i>	<i>140</i>	<i>100%</i>			

<u>Number of Students in Class</u>	<u>Number</u>	<u>Percent</u>	<u>Student Population of Elementary School</u>	<u>Number</u>	<u>Percent</u>
10 or fewer	8	5.7%	199 or fewer	34	24.3%
11-15	8	5.7%	200-399	41	29.3%
16-20	30	21.4%	400-599	38	27.1%
21-25	52	37.1%	600 or more	27	19.3%
26-30	37	26.4%	<i>Totals</i>	<i>140</i>	<i>100%</i>
31 or more	5	3.6%			
<i>Totals</i>	<i>140</i>	<i>100%</i>			

It is notable that over half of the sample population (55%) is in their first 10 years of teaching, with 31% of those being new and relatively inexperienced teachers. In addition, according to the Idaho Class Size Maximums Act (2013), primary grades should not have more than 18 students per classroom, and intermediate grades should be limited to 22. Yet 46 of the 78 primary teachers (58.9%) report class sizes of over 20, whereas 29 of the 62 (46.7%) intermediate teachers report class sizes of 26 or more students. Subsequently, well over half of the teachers who participated in this survey had excessive class sizes as per Idaho code.

Tables 2, 3, 4, and 5 provide the following information: the teaching-learning behavior conceptual framework category to which the survey statements belong; the related survey statements delineating constructivist differentiation techniques and strategies; participants' desired and actual use of each strategy; the degree of difference between participants' desired versus actual use of each technique or strategy. The information is organized into four tables to represent the four noteworthy ranges of difference.

Table 2.

Difference between desired and actual of greater than 1.25

<u>Teaching- Learning Behavior</u>	<u>Survey Number</u>	<u>Survey Statement</u>	<u>Mean: Desired</u>	<u>Mean: Actual</u>	<u>Diff.</u>
Student evaluations	6	Students are evaluated individually and move on to another task once they have mastered the objectives of a unit.	4.50	3.00	1.50
Teacher Objectives	12	The time that students have to complete or master a given concept or skill varies based on individual differences.	4.75	3.25	1.50
Classroom expectations of students	7	Students conduct a major part of their learning on a self-directed basis.	4.08	2.75	1.33
Teacher communication and messages	8	Your role as a teacher is that of a facilitator of learning or resource partner, the "guide on the side" rather than the "sage on the stage."	4.75	3.42	1.33
Student objectives	19	Pretests and other similar diagnostic instruments are used to determine the parts of a unit that individual students need.	4.33	3.00	1.33

Table 2 represents the differentiation strategies and techniques in which teachers have a greater than 1.25-point difference between their desired use and actual use.

Table 3.

Difference between desired and actual of 1.00 to 1.25

<u>Teaching- Learning Behavior</u>	<u>Survey Number</u>	<u>Survey Statement</u>	<u>Mean: Desired</u>	<u>Mean: Actual</u>	<u>Diff.</u>
Teacher planning and preparation	18	Lesson planning is done for individual students rather than for the entire class.	4.17	2.92	1.25
Student evaluations	13	Divergent ideas are encouraged by the teacher in evaluating student work, as opposed to expecting convergence in exams and other evaluations.	4.36	3.18	1.18
Student communication and messages	4	Sufficient time is allocated for students to think, play with ideas, manipulate objects, and experiment in learning without the pressure to get "the right answer at the right time."	4.42	3.25	1.17
Teacher Objectives	2	Classroom objectives focus on cultivating and facilitating social skills, cooperation, idea exchange, and shared problem-solving, as opposed to memorizing.	4.83	3.67	1.16
Teacher Objectives	10	Knowledge of each student—including life outside of school—is used to plan instructional activities.	4.33	3.17	1.16
Teacher planning and preparation	23	A variety of diverse learning assignments are designed to meet individual student interests and needs.	4.27	3.18	1.09
Student evaluations	9	Student evaluations are based on individual learning growth instead of fixed standards all are expected to learn.	4.50	3.50	1.00
Student planning and preparation	22	Students plan an active role in contributing to the direction of content of the lessons that form their learning experiences.	4.27	3.27	1.00

Table 3 represents the differentiation strategies and techniques in which teachers have a 1.00- to 1.25-point difference between their desired use and actual use.

Table 4.

Difference between desired and actual of 0.75-0.99

<u>Teaching-Learning Behavior</u>	<u>Survey Number</u>	<u>Survey Statement</u>	<u>Mean: Desired</u>	<u>Mean: Actual</u>	<u>Diff.</u>
Classroom expectations of students	3	Cooperative learning experiences are used so that students often receive instructional assistance from one another.	4.25	3.33	0.92
Teacher Objectives	5	Different students, when working on a unit of instruction, use different materials, resources, and equipment.	4.42	3.50	0.92
Teacher communication and messages	20	The teacher typically communicates individually with students or in small groups, as opposed to whole-class discussions.	4.25	3.33	0.92
Teacher behaviors	11	The students and teacher respect the diverse opinions of others and come to agreements in a collegial fashion.	4.82	3.91	0.91
Student communication and messages	15	Information is presented in a matter that promotes authentic inquiry, and students are encouraged to consider questions for which a "right" answer may not exist.	4.18	3.36	0.82
Student communication and messages	1	The teacher practices the use of open-ended questioning rather than focusing on the "right" answer syndrome.	4.33	3.58	0.75
Teacher planning and preparation	17	Diagnostic elements, such as IQ, reading level, and math ability, are used to plan individual student activities.	4.67	4.00	0.67
Teacher behaviors	21	Different instructional techniques are used with different students.	4.58	3.92	0.66
Student planning and preparation	24	Students are offered instructional assistance and guidance individually, rather than in a large group setting.	4.67	4.08	0.59
Student evaluations	16	Formal evaluations and grading/marking are based on authentic assessment principles.	4.45	3.91	0.54

Table 4 represents the differentiation strategies and techniques in which teachers have a 0.51- to 0.99-point difference between their desired use and actual use.

Table 5.

Difference between desired and actual 0.50 or less

<u>Teaching- Learning Behavior</u>	<u>Survey Number</u>	<u>Survey Statement</u>	<u>Mean: Desired</u>	<u>Mean: Actual</u>	<u>Diff.</u>
Teacher planning and preparation	25	The teacher varies the type and degree of difficulty of their questions to assure that each student understands and can contribute.	4.83	4.33	0.50
Teacher communication and messages	14	The personal problems or learning handicaps of students are accepted with consideration, understanding, and empathy.	4.92	4.50	0.42

Table 5 represents the two differentiation strategies and techniques in which teachers have a point difference of 0.50 or less between their desired use and actual use.

To further analyze the collected data from the Idaho teacher sample, one-way ANOVAs were conducted to examine the impact of teaching experience, student population of the school, student population of the classroom, and teaching level on the survey results. The one-way ANOVAs were utilized to determine if there statistically significant differences between groups. Then Tukey's HSD was used to determine the nature of the differences between the identified groups. Significant results were found for the following groups regarding their responses to the identified survey statements:

- A significant difference was found ($F(4, 110) = 2.944, p < .05$) between teachers with 6-10 years of experience and 16-20 years of experience regarding their responses to statement 6 (Desired), *Students are evaluated individually and move on to another task once they have mastered the objectives on a unit*. Teachers with less experience (6-10 years) identified more desired use ($m = 4.46, sd = .761$) than their counterparts with 16-20 years of experience ($m = 3.62, sd = 1.12$). Interestingly, teachers with the most experience (21 or more years) also had more desired use of statement 6 ($m = 4.32, sd = .684$) than their colleagues with 16-20 years of experience.
- A significant difference was found ($F(4, 110) = 3.831, p < .05$) between teachers with 0-5 years of experience and teachers with 6-10 years of experience regarding Statement 10 (Actual), *Knowledge of each student, including life outside of school, is used to plan instructional activities*. Teachers with 6-10 years of experience ($m = 3.81, sd = .962$) had higher scores regarding the Actual frequency of use when compared to their colleagues with the least amount of experience of five years or fewer ($m = 3.00, sd = .842$).

One-way ANOVAs were also conducted to examine the impact of student population of the school on survey results. Tukey's HSD was used to determine the nature of the differences between identified groups. The ANOVA returned significant relationships found in Actual Statements 6, 7, 12, and 18, and Desired statements 22 and 23. Tukey's HSD yielded post-hoc results for all except Actual 12 and Actual 18.

- Desired 22, *Students play an active role of contributing to the direction or content of the lessons in their learning experiences*, ($F(3, 106) = 2.853$): Teachers in schools with 600+ students ($m = 4.50, sd = .740$) had higher scores compared to their colleagues with 199 or fewer students ($m = 3.81, sd = .740$).

- Desired 23, *A variety of diverse learning assignments are designed to meet individual student interests and needs*, $F(3, 109) = 3.149$: Teachers with school populations of 200-399 students ($m = 4.45$, $sd = .675$) had higher scores for Desired 23 than their counterparts in schools with 199 or fewer students ($m = 3.39$, $sd = .730$).
- Actual 6, *Students are evaluated individually and move on to another task once they have mastered the objectives of a unit*, $F(3, 109) = 3.149$, and Actual 7, *Students conduct a major part of their learning on a self-directed basis*, $F(3, 110) = 3.240$: Teachers in schools with fewer students (199 or fewer) recorded higher actual frequency of use for the statements compared to their counterparts in schools with 400 to 599 students.
- Actual 7, Teachers in schools with fewer students (199 or less) recorded higher actual frequency of use for the statement compared to their counterparts in schools with 400 to 599 students

One-way ANOVAs were also conducted to examine the impact of student population of the classroom on survey results. The ANOVA returned a significant relationship for Desired Statement 24, *Students are offered instructional assistance and guided individually rather than in a large group setting*. However, there are no significant Tukey results so we cannot speak to the direction of the relationship.

There were no significant relationships found from the one-way ANOVAs conducted to examine the impact of teaching level on survey results.

DISCUSSION

The research is a starting point to examining differentiation within rural and remote areas of the United States. The use of an evidence-based tool to examine differentiation within instruction assists in addressing the gap within the literature and provides rural teachers with tailored research results. The Idaho teachers in this case study report their biggest hurdles to differentiation being individualized evaluation based on mastery and individualized amounts of time for students to master skills and concepts, with both standardized assessment requirements and regimented schedules and district pacing calendars noted as rationales. Teachers within this Idaho case study consistently, across all demographics, feel like they effectively address students with understanding and empathy, and utilize various questioning techniques to ensure student understanding and participation, as evidenced by their self-identification of their actual teaching practices.

Teachers in rural and small-town Idaho and elsewhere around the country are encouraged to utilize the questions and results of this survey as a basis for self-analysis, instructional team discussions, and schoolwide conversations on meeting the diverse, individual needs of their students through the implementation of differentiation practices. By evaluating their current practices with their desired practices, teachers and instructional teams can begin conversations regarding the way forward for their schools. The results of this survey may assist these teachers and teacher teams in understanding that they are not alone in the struggles they face in their small school settings, and provide additional information and incentive to work to implement the changes necessary to help them close the gaps on their desired versus actual practices to better meet the individualized needs of their students.

RELATIONSHIP TO OTHER STATES' DATA AND NATIONAL NORMS

Comparing the Indiana, Georgia, and New York results to the recently collected Idaho data, it was found that teachers in rural Idaho may experience more barriers due to the educational climate compared to their colleagues in other states (Bryant, 2010; Peace et al., 2017; Wu, 2017; Polka et al., 2016). In the qualitative data collected, the Idaho teachers expressed inequitable funding, large class sizes, and lack of access to resources and professional development as a barrier. Conversely, some teachers in very rural areas noted small class sizes or multiple grade levels within one class as a driving force behind their differentiation teaching approaches. The Idaho data also identified that teachers had a greater familiarity with students in terms of learning behaviors and values in smaller schools than in larger school settings, which may lead to a tendency to promote greater use of child-centered teaching approaches for differentiation. The results of this survey of teachers in small-town and rural schools in Idaho adds to corresponding bodies of research being conducted utilizing the same survey instrument in Arkansas, Georgia, Indiana, Kansas, Mississippi, Missouri, New York, Ohio, South Dakota, Texas, Vermont, and Virginia. The Idaho results discussed here will help inform the final dissemination of recommendations from the nationwide collection of data.

In conclusion, the research team for this study encourages teachers in rural and small-town schools to review the results of this survey and use the survey instrument for professional conversations and both short- and long-term strategic planning as they continue to build on the strengths of their differentiation practices. Idaho teachers and others in rural and small-town schools nationwide are also encouraged to bolster their professional knowledge, skills, and approaches regarding differentiated instruction, and to work with their districts to reduce barriers preventing them from implementing constructivist-based learning in their classroom.

REFERENCES

- Annie E. Casey Foundation. (2017). Children receiving free or reduced price lunch by school district: Idaho locations [Data set]. *Kids Count Data Center*. Retrieved from <http://datacenter.kidscount.org/>
- Ayers, D.J. (2008). *The effect of teacher attitudes on differentiated instruction in two rural elementary schools in Monroe County, Georgia*. Retrieved from ProQuest Digital Dissertations. (UMI 3297933)
- Brooks, J. & Brooks, M. (1993). *In search of understanding: The case for constructivist classrooms*. Alexandria, VA: ASCD.
- Bryant Jr., J.A. (2010). Dismantling rural stereotypes. *Educational Leadership*, 68(3), 54-58.
- Class Size Maximums Act. (2013). Legislature of the State of Idaho. Section 1, 33-1022D. Retrieved from <https://legislature.idaho.gov/wp-content/uploads/sessioninfo/2013/legislation/S1086.pdf>
- Coladarci, T., Cobb, C., Minium, E., & Clarke, R. (2008). *Fundamentals of statistical reasoning in education* (2nd ed.). Hoboken, NJ: Wiley & Sons.
- Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.). Alexandria, VA: ASCD.
- Darling-Hammond, L. (1997). *The right to learn: A blueprint for creating schools that work*. San Francisco, CA: Jossey-Bass.
- Eggen, P. & Kauchak, D. (2001). *Educational psychology: Windows on classrooms*. Upper Saddle River, NJ: Prentice-Hall.

- Foote, C., Vermette, P., & Battaglia, C. (2001). *Constructivist strategies: Meeting standards and engaging adolescent mind*. Larchmont, NY: Eye on Education.
- Heathers, G. (1967). *Organizing schools through the dual progress plan: Tryouts of a new plan for elementary and middle schools*. Danville, IL: The Interstate Publishing Co.
- Idaho Commission on Hispanic Affairs. (2015). *State district ethnicity*. Retrieved from <https://icha.idaho.gov/menus/stats.asp>
- Idaho Constitution, Article IX, Section 1. Retrieved from <https://sos.idaho.gov/elect/stcon/articl09.htm>
- Johnson, J., Collins, H., Duperes, V., and Johansen, J. (1991). *Foundations of American education*. Boston: Allyn and Bacon.
- Johnson, J.A., Musial, D.L., Hall, G.E., & Gollnick, D.M. (2014). *Foundations of American education: Becoming effective teachers in challenging times* (16th ed.). Upper Saddle River, NJ: Pearson.
- Levy, H.M. (2008). Meeting the needs of all students through differentiated instruction: Helping every child reach and exceed standards. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 81(4), 161-164.
- Marzano, R., Pickering, D., & Pollock, J. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: ASCD.
- Peace, T.M., Polka, W.S., & Mete, R.E. (2017). Assessing and promoting student-centered teaching and learning practices using a quantitative educational planning tool: Results of 2016 Indiana case study. *Educational Planning*, 24(2), 21-39.
- Polka, W. (2002). Facilitating the transition from teacher-centered to student-centered instruction at the university level via constructive principles and customized learning plans. *Educational Planning*, 13(3), 55-61.
- Polka, W. (2010). Facilitating instructional differentiation via teacher reflections about desired constructivist practices and current realities: A pragmatic research model. In E.G. Pultorak (Ed.), *The purposes, practices, and professionalism of teacher reflectivity: Insights for twenty-first century teachers and students* (pp. 163-188). Lanham, MD: Rowman & Littlefield Education.
- Polka, W.S. & VanHusen, M.J. (2014). Applying teacher reflection strategies to promote greater differentiation of instruction: A practice research model and procedural guide. In E.G. Pultorak (Ed.), *Reflectivity and cultivating student learning: Critical elements for enhancing a global community of learners and educators* (pp. 111-135). Lanham, MD: Rowman & Littlefield Education.
- Polka, W.S., VanHusen, M.J., Young, W.M., & Minervino, K.J. (2016). Facilitating greater instructional differentiation via research-based teacher reflections and site-based procedural guidelines. *Educational Research: Theory & Practice*, 28(1), 37-52.
- Slavin, R. (2006). *Educational psychology: Theory and practice*. Upper Saddle River, NJ: Pearson Education, Inc.
- Sternberg, R., & Williams, W. (2002). *Educational psychology*. Boston: Allyn and Bacon.
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935-947.
- Tomlinson, C.A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). Alexandria, VA: ASCD.
- Tomlinson, C., Brimijoin, K., & Narvaez, L. (2008). *The differentiated school: Making revolutionary changes in teaching and learning*. Alexandria, VA: ASCD.

- Tomlinson, C., & Imbeau, M. (2011). *Leading and managing a differentiated classroom*. Alexandria, VA: ASCD.
- United States Department of Agriculture Economic Research Service. (2017). *State fact sheets: Idaho* [Data set]. Retrieved from <https://data.ers.usda.gov/reports.aspx?StateFIPS=16&StateName=Idaho&ID=17854>
- US News and World Report. (2017). *Best states: Idaho* [Data set]. Retrieved from <https://www.usnews.com/news/best-states/idaho>
- Westberg, K. & Daoust, (2003). The results of the replication of the classroom practices survey replication in two states. *The National Research Center on Gifted and Talented Newsletter* (fall), 3-8.
- Wu, E.H. (2017). Paving the way for differentiated instruction in rural classrooms under Common Core State Standards. *Journal of Advanced Academics*, 28(1), 51-65. doi:10.1177/1932202X16683646