

Hear Our Voice: Motivational Curriculum and Perceptions of Adults with Intellectual Disability

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ABSTRACT

Students with intellectual disability (ID) benefit from classrooms offering specialized curricula and resources designed to meet their individual learning needs. This qualitative, single descriptive case study applied Keller's Attention, Relevance, Confidence, and Satisfaction (ARCS) Motivational Instruction Model to reading instruction for adults with ID in a Northern California learning environment previously excluding a specific motivational curriculum component. Twelve adult student participants with ID experienced a reading workshop curriculum including and without the addition of Keller's Attention, Relevance, Confidence, and Satisfaction (ARCS) motivational instruction model. The research questions, presented in a focus group format, asked how the students described their perceptions of learning ability in the four ARCS focus areas of attention, relevance, confidence, and satisfaction. The sub-questions asked which areas the students perceived as the most engaging part of each workshop. Four instructor participants also provided classroom observations in post-workshop interviews. Resultant themes identified that perceived personal connection to class material, personal support, and recognition of accomplishment motivate student concept learning, engagement, and success. Implications and recommendations for scholars, practitioners, and leaders present suggestions for developing new models or adapting existing models for motivational instruction designed for optimal education of this special student group.

Keywords: adults, disability, motivation, instruction, perceptions, curriculum

INTRODUCTION

Students with intellectual disability, or ID, experience cognitive delays inhibiting performance and connection within educational and social environments (Matson & Rivet, 2008). Those who do not receive individualized access to instruction can experience diminished academic and social classroom success (Causton-Theoharis et al., 2011). The development of classroom best practices can benefit from an awareness of obstacles experienced by students within their coursework (Carnahan & Fulton, 2013). Related attention to the students' own voices, perspectives, and perceptions of success can inform instructional strategies for increased motivation, participation, and learning connections. Understanding and working toward the development of such components are necessary for the identification of motivational strategies that can result in increased accessible learning (Neagu, 2016; Wentzel & Wigfield, 1998). However, few studies of motivational curriculum components for the instruction of adult students with ID beyond post-senior education exist within the current literature. Therefore, the focus of this qualitative, descriptive single case study was on the perceptions of learning success in a wider age range of adult students with ID who experienced a reading workshop curriculum with and without the addition of a motivational instruction model.

Research question 1 was: How did the inclusion of the ARCS motivational instruction model (Keller, 2008) in the reading workshop curriculum affect the instructors' observations of perceptions of learning attention, relevance, confidence, and satisfaction in adult students with ID? Research question 2 was: How did the inclusion of the ARCS motivational instruction model in the reading workshop curriculum affect personal perceptions of learning attention, relevance, confidence, and satisfaction in adult students with ID? Sub-question 1 was: How did instructors describe what they observed as the most engaging part of the learning experience with the reading workshop curriculum without and including the ARCS motivational instruction model for adult students with ID? Sub-question 2 was: How did adult students with ID describe what they perceived as the most engaging part of their learning experience with the reading workshop curriculum without and including the ARCS motivational instruction model?

LITERATURE REVIEW

Described pathways for learner interest and involvement include the student's intrinsic needs, connections to

individual and classroom goals, perceived personal values, and participant-based learning experiences. Keller's (1983) Motivational Design Theory (MDT) combines these pathways and offers a framework for the design of this qualitative, descriptive case study of motivational instruction. MDT also includes enhanced motivational elements for addition to traditional instruction.

Aspects of MDT include stimulus of student self-efficacy, personal motivation to learn, emphasis on the whole learner, and psychological aspects of attention involving the student's personal and environmental needs. Some of the theories providing a foundation for MDT were Gagné's (2018) Conditions of Learning Theory, Merrill's (1994) Component Display Theory, and Bandura's (1996) Social Cognitive Theory (SCT) of human development. These theories support strategies for the development and shaping of student focus. Specific attention to intrinsic and extrinsic areas of motivation provides focus on the physical and psychological aspects of a learner's experience. Employment of MDT assists in the development of instruction with student motivation and engagement at the center of planning and delivery.

Keller (2008) leveraged MDT to develop the Attention, Relevance, Confidence, and Satisfaction (ARCS) model for motivational instruction as a specific process for the application of motivational principles when teaching groups of learners. The ARCS model features a framework integrating the four separate areas within its title. The first area of attention includes levels of learner curiosity; the second area of relevancy involves the learner's motives and pre-established values. The third area of confidence relates to the learner's expectancies of success. Finally, the fourth area of satisfaction addresses the learner's evaluation of personal outcomes.

Pai-Luwith and coauthors (2012) note the usefulness of the ARCS framework through clinical validation of situational learning applications. Keller's (2008) ARCS model offers educators and administrators a tool for identifying characteristics of learners and applying appropriate tactical adjustments to increase motivational outcomes. The ARCS model has previously been employed to research diverse learning needs and environments through attention to situational uniqueness within the learning environment in developing synthesized approaches to productive problem-solving. The conceptual framework for this study includes problem-solving motivational strategies related to such specific situational characteristics.

The findings included observations of instructors and direct responses from students regarding their perceptions

of personal experiences through the lens of the four ARCS areas. The inclusion of the perceptions of adult students with ID also contributes toward filling the gap in the literature through the addition of their voices to the findings of the study. The addition of aspects of Keller's (1983) Motivational Design Theory (MDT) to the instruction of adults with ID and employment of the MDT-based ARCS motivational instruction model (Keller, 1983, 2008) expand theory applications through the employment of MDT and ARCS as a motivational component of curriculum development and delivery within a higher education classroom of adult students with ID.

Educators of adults with ID experience challenges with improving and effectively employing tools for determining outcomes within varied learning environments (Courtade et al., 2014). Identified motivational curriculum components assist teachers of special education, inclusive, and typical learning groups in practice by expanding their curriculum repertoire. Contributions of the study also assist educational leaders in developing policies for expanded and motivationally based classroom goals for instruction and learning.

Implications include recommendations for the development of new models or adaptation of existing models for motivational instruction designed for optimal education of students with ID. These recommendations include the development of creative motivational materials, methods leveraging motivational support, and alternative motivational assessments.

The intended audience for this study includes scholars, instructors, administrators, educational leaders, and policymakers involved in work toward curriculum development and instructional planning for classrooms including learners with ID. The information also contributes to applications in other learning environments designed for diverse age groups and neurodiverse learning groups.

METHOD AND DESIGN

A qualitative approach was selected for this study because of the need for small class groups of participants and questions about how those participants create meaning (Merriam & Tisdell, 2016). A single classroom of learners in an expressive reading workshop was identified as the bounded system or unit of analysis. Deep exploration of the phenomenon was obtained through the employment of multiple data sources, and thick descriptions within inductive analysis moving from raw, textual data to in-depth inferred and contextual meaning within ab-

stract data concepts and categories (Yin, 2018).

The framework including Keller's (1983) Motivational Design Theory, or MDT, included an emphasis on the whole learner, psychological aspects of attention involving the student's personal and environmental needs, the stimulus of student self-efficacy, and personal motivation to learn. The framework also employed Keller's (2008) ARCS Motivational Instruction Model with a focus on the four core motivational areas of attention, relevance, confidence, and satisfaction. Identifying learners' individual characteristics and needs informed strategies and adjustments considering varied learning styles, needs, and environments.

This MDT/ARCS framework was added to the existing model for curriculum development and delivery already employed in all classes in the environment for study including access to concepts through engaged participation, the response through personal inquiry and identified connections, transfer to independent use, and sustainment through the sharing of learned concepts with others.

Setting, Population, and Sample

A Northern California environment within the United States offering higher education learning programs, curriculum, and delivery methods specifically designed for adult learners with the ID provided the setting for the study. The research benefitted from this unique location, the only of its type in the region for ongoing, higher education for adults with ID. The researcher's role at the time of the study was Dean of Instruction, including curriculum development, instructional supervision and mentoring, and expansion of programs and learning resources. The researcher did not participate in any teaching, mentoring, or supervisory capacity during the workshop sessions.

Administrative permissions, resources, instructors, and volunteers were immediately available. The rationale for location selection also included the registration of adult students with ID and the fact that all registered students participated in courses in one central location. The latter provided convenience for participants.

The number of participants was appropriate because the standard number of students per class and the average instructor ratio were compatible with the needs of the study. Selection of student participants who were part of the location's registered student base provided the convenience of non-random selection on a first-come, first-serve basis. The adult students reliant on family transportation or restricted state-provided transportation

experienced logistical convenience because of the pre-established scheduling of travel to the location with transportation providers.

The general population included adult students with ID at the learning organization in the Northwestern region of the United States in which the research was conducted. The specific population included male and female adult learners with ID enrolled in two expressive reading workshop sessions at the same location for the study. The sample for study included twelve students and four instructors. These numbers provided a reasonable representation of the environment for study. Purposeful and non-random convenience sampling was employed on a first-come, first-serve basis.

Instrumentation

The selected instrumentation included three main lines of inquiry toward data triangulation. First, videotaped student focus groups occurred at the end of each of the 2 workshop sessions. Second, videotaped individual instructor interviews occurred at the end of the second session. Third, a researcher's field journal provided observational notes.

A researcher field journal included written and videotaped observational information from each area of triangulated data: two instructor-led workshop sessions, instructor-led focus groups following both sessions, and individual instructor interviews led by the researcher. The uniform application of this tool helped organize all written data for transcription in a similar way. Descriptive field journal notes from each interview were also employed to assist with the transcription of complete and authentic responses to interview questions. Semi-structured and open-ended questions were employed for the student focus group discussions and the instructor interviews. The instructors shared personal stories rich with descriptions of student attitudes, and choices, and expressed feelings toward workshop sessions employing and without the ARCS motivational instruction model.

Audio files from videotaped data were captured using Quicktime 7 video software for playback and Microsoft Word software for transcription to individual text-based documents. These documents were referenced to record and code the raw textual data. This coded data was transferred to excel spreadsheets and loaded into an NVivo software program for deeper analysis of thematic, inferential, and contextual meaning. Results emerged from an examination of analysis tools including charts and tables.

Throughout the study, dependability and trustworthiness were maintained through a focus on ethics, steps to

prevent bias, and maintenance of the participants' emic focus. Appropriate steps were followed to obtain signatures on participant documents of informed consent, including a co-signature of a legal guardian on all forms signed by student participants to verify understanding of and agreement to the content. Instructor participants signed additional non-disclosure forms.

Other individuals including legal guardians, a site Safety Manager, and a Class Scheduling Manager who were present at the site during the study but not participants in the study, also signed forms of non-disclosure. Ongoing clarification of the researcher's role occurred through the information posted for potential participants pre-study and presented at pre-study participant informational meetings for instructors, students, and their legal guardians, and reviewed at a separate, pre-study instructor training meeting. During these meetings, all participants were informed that they could withdraw at any time with no negative repercussions.

Dependability was assured through attention to detailed protocols and clear documentation of expectations and assumptions throughout the research steps. Confirmability was acknowledged through explanations of the step-by-step processes and analysis tools: Nvivo12, Excel, and Microsoft Word. Credibility was assured through clear research steps.

Assurance of trustworthiness involved attention to aspects such as multiple sources of triangulated data and the inclusion of confirming and disconfirming evidence. Transferability included a clear audit trail and thick, descriptive data for potential transfer to other environments. The need for authenticity was addressed through data and artifacts identified as authentic and occurring within truthful, systematic reporting of processes and results.

DATA COLLECTION AND ANALYSIS

During the data collection, the researcher maintained the role of a complete observer within the learning space. The classroom area consisted of a rectangular formation of tables at the back of a large open studio. A 6-foot-by-twelve-foot jointed, lightweight black canvas rolling partition separated the large room into individual class spaces. The students were accustomed to seeing this divider in various parts of the classroom, including directly behind their immediate learning area when multiple classes were sharing the space.

The researcher remained unseen and outside of the immediate class space, and quietly observed using a large monitor connected by cable to a video camera positioned

in the corner of the classroom. The students were accustomed to being filmed and photographed for social media posts sharing class projects, and the presence of a video camera was as familiar to them as the divider. The researcher remained hidden from direct student view in this area during both workshop sessions and student focus group discussions.

This arrangement provided detachment from personal interactions. Removal from the immediate classroom space also allowed discreet journal writing, potentially decreasing participant anxiety or concerns about whether they were being critiqued. In addition, instructor participants could follow established protocols without researcher involvement.

The two reading workshop sessions occurred on two consecutive days and employed two different children's theatre scripts.

The two days of reading workshop sessions included two different children's theatre scripts. Both sessions included a discussion of vocabulary and storyline, student self-selection of characters, a table reading of the script, and floor work in the classroom space when where the students could apply physical action to the words they read. Focus groups included student participation in discussions concerning perceptions of their learning experiences. These groups were employed as instructor-led, videotaped, semi-structured, and open-ended question-and-answer sessions following the completion of each workshop learning session day.

Instructor interviews took place after the second workshop session. These interviews provided instructor observations of student behaviors, responses, and communicated thoughts and feelings. The process was videotaped and researcher-led, using semi-structured and open-ended questions. A researcher field journal provided a third data source with manual, descriptive, and detailed data gathered consistently through the use of the same data-gathering tool during each point of the study.

Transcribed data were ordered and coded manually using Word and Excel, and digitally using the NVivo 12 software. Concepts, trends, patterns, and themes were then identified during the triangulation of the three main data sources for a broad view of student ideas and perceptions, and identification of the connections that did or did not exist between them (Berg & Lune, 2012). The presence or absence of connections led to the identification of confirming and disconfirming evidence, and emerging patterns within the data toward three main themes.

Theme one: Perceived personal connection to class material motivates student concept learning. The in-

structors observed the students perceive improvisational, theatrical floor work as the most impactful workshop activity. They explained their perception that these were the most memorable, fun, and interactive parts of the class. This is an interesting point, as the students described their perceptions of the experiences as playful additions to heavier core concept work of traditional reading instruction. However, these theatrical activities were observed to involve the deepest instructional work and demand the most continually focused participation toward concept learning.

For example, the intellectual attention demanded by the session one-floor work lesson included deep and thoughtful interactions with instructors and fellow learners regarding abstract concepts. Adults with ID can experience difficulties with skills such as initiation and response, recognition of emotional states, and recognition of the interests of others (Dickerson et al, 2013). Dialogue required depth of inferential thinking, dissection of connections that did or did not exist between differing perspectives, and contemplation of cause and effect. Physical demands included the use of the body and voice in new and potentially awkward ways toward a whole-body experience of unique qualities of speech and characterization.

Connections exist between engagement, positive attitudes toward learning, and abilities of critical thinking (Belzer & Ross-Gordon, 2011). As the activities of the class created personal connections to the activity, students were observed to exhibit increased personal connections and insight toward the development of character qualities. Such content was not included in the naming of the activity and students viewed the work as a break from serious instruction.

When activities offered to adult learners with ID are perceived to offer attention to personal needs, increased interest can transfer to learning (Moni et al., 2011). The non-traditional re-framing of this workshop activity was observed to create the perception of a diversion from serious study, decreasing anxiety and increasing the opportunity for personal connection and engagement. This produced a burst of energy and prolonged focus from the students.

The instructors observed a similar effect on student learning perceptions during the small group break-out rehearsals of session two. Students also exhibited a renewed burst of energy and focus when work was transferred to the floor. The general model of activity from the day before was employed again and most could comfortably engage with a performance-prove goal orientation (Hirst et al., 2011).

The students participated in similar, guided, intellectual-inferential exercises toward narration of a story with a point of view. However, session two included the added discussion of ARCS concepts throughout the class and the total time allotted to floor work was shorter. Therefore, physical work and the development of character backstories were not included.

The removal of the physical component may have contributed to observations that student attention and energy were maintained at a higher level during the floor work of session one. Students who perceive classroom experiences as personally supportive are motivated to engage in learning activities. The format of the second session may have presented challenges in these areas.

Class discussion topics regarding concepts taught were observed to produce the fastest, most detailed recall when centered on lessons from floor work. The students were also observed to perceive increased contribution ability based on recall when discussion topics involved floor work activities. Such observations address RQ1 and RQ2 inquiry regarding instructor observations and student perceptions of attention as related to the ARCS areas of motivational learning. They also address SQ1 and SQ2 inquiries regarding attention-based areas of workshop learning observed by instructors and perceived by students as most engaging.

Theme two: Perceived personal support motivates engagement in learning activities. Students who perceive classroom experiences as personally supportive are motivated to engage in learning activities. The curriculum delivery of session one allowed the students to focus on their own best performance of a character they personally developed. Such development created a personal connection to the work of the class and class members and focused attention on their personal understanding and situational responses. These qualities of experience contribute to the development of a positive, supportive dynamic between the individual with ID and others (AAIDD, 2013). Session two involved ensemble work in group narration-style readings of a story. The readings of lines for the few characters in the story were shared by small groups of students without the personalization of character development or personal ownership of a specific role.

This changed the role of the student within the class group. The result was observed as an obstacle to forward momentum for some students who had committed the previous day to an existing workshop structure that fit their needs (Dizdarević & Ibralić, 2011). During the second session, they approached a new structure in which they had not previously experienced success. This infor-

mation aligns with the instructors' observations that the students perceived the structure of session two as more challenging than session one. The team approach, with multiple students narrating each role in the rotation, required increased flexibility and group focus.

Students described perceptions of occasional nervousness and anxiety about their ability to understand new expectations of instruction. The instructors observed this scenario as providing opportunities to support apprehensive or fearful students, and for the students to support each other. Disability culture includes common belief systems (Ripat & Woodgate, 2011). Interpersonal support was defined by the instructors as an important part of the belief system of the adults with ID in this class group and at this location for study. This aligned with a common thread within student focus group feedback of the importance of additional opportunities to encourage and support fellow classmates.

These student-to-student opportunities were observed to occur with the most frequency during the ARCS-based question and answer sessions of workshop two when students could express what had occurred just prior to during session work. The topical content of the discussion activity was observed to validate perceptions of important self-efficacy among the students (Bergstrom et al., 2014). Feelings and thoughts kept inside during the instructional portions of the class were brought out during this active solicitation of their ideas and reflections. The revelations were encouraged and applauded by instructors and classmates to increasing degrees respective to the depth of reflective personal contribution and insight and the degree to which they could relate the information to their own experience.

The positive meaning ascribed to an individual's progress can increase classroom motivation, and the negative meaning can decrease classroom motivation (Bandura & Locke, 2003). Students were observed to desire the positive praise and contribute in some way to each shared story, finding a personal connection within the shared class experiences. Although common points of discussion often included feelings of insecurity and frustration with others in their group, the act of expressing their thoughts and feelings provided a positive environment for sharing. This was followed by introspective group dialogue for an understanding of concepts of teamwork and patience, with outcomes of self-worth and satisfaction with the learning moment. An example of such a discussion between a student (S8) and a teacher (T3) follows:

S8: I wanted to say when we were, um, when we were reading our script today. When I was reading I just no-

ted that when we, I know people wanted to cut me off when I was reading something and then someone take over my part. And I don't want to give up. Because I know my ability to say my lines before people get into my lines. And that was kind of hard for me.

T3: Yes, and I think sometimes people weren't doing that deliberately, (S8), they were confused about where they are...

S8: Oh, okay.

T3: Or about when their time was...

S8: That's fine.

T3: Yeah, no but that's why doing something like this is all about teamwork.

S8: Yeah, that's right!

The deep learning of concepts of involving interpersonal skills of working with others and focusing outside of oneself provided the eventual connection of session learning to other life areas, discussed further in Theme Three. The instructors observed, and the students related, perceptions that ARCS-based discussion was another highly engaging portion of the workshop experience. This information is surprising, as discussion regarding why the class is difficult may not initially seem a motivator of success and learning drive.

Some adults with ID may possess residual feelings of failure from other environments and low learning expectations (Graham, 2015). This information may contribute to indicators within this study that positive self-worth and intrinsic motivators can be more important to these students than other extrinsic motivators, such as the completion of a reading task. Such observations address RQ1 and RQ2 inquiries regarding instructor observations and student perceptions of personal relevance as related to the ARCS areas of motivational learning. They also address SQ1 and SQ2 inquiries regarding relevance-based areas of workshop learning observed by instructors and perceived by students as most engaging.

Theme three: Recognition of accomplishment motivates perceived learning success. As noted in the discussion of Theme Two, the students transitioned from one structure of participation into another at the start of session two. The success of day one was observed to result in expectations of positive outcomes, which is important to the development of skills of persistence (Dickhäuser et al., 2011). The American Psychiatric Association's (APA, 2019) definition of ID includes behavioral limitations when adapting to changing stimuli. Such persistence, combined with the confidence gained from interactions of day one, may have contributed to the student's abilities to overcome their anxieties about perceived barriers

to success in session two (Gibbons et al., 2015).

Personal support from instructors and classmates are important to eventual feelings of belonging and accomplishment (Wilson et al., 2012). The instructors observed the help of friends in practicing reading fluidity, vocabulary understanding, and articulation skills to increase student confidence. The students discussed perceptions of success and pride when their skills were encouraged and praised by the instructors.

Some students expressed perceptions of confusion and nervousness about performance expectations with a new style of the script and a different approach to work on the second day. Others expressed relief about the focus on small groups rather than individual performance. Some instructors observed flexibility to be another sign of student success.

Separate cognitive domains for academic and social-individual orientation require an understanding of the context and reasoning behind a presented goal. When multiple goals including both domains are presented, the social goals often receive priority. When these social-individual goals are connected to classroom goals, motivation can occur (Wentzel & Wigfield, 1998). Instructors observed that all students were committed to the goal of small group work, and the opportunity to work with friends connected to their social-individual goals of enjoyment. Instructor and student recognition of a student's success through flexibility included ongoing and enthusiastic acknowledgment of confidence in the students' abilities to meet class challenges.

Another area of student perception related to learning success was recognition from people important to their lives. For example, one student frequently mentioned the positive recognition from a parent gained from sharing stories of success in the workshop. Another student discussed pride in the ownership of new skills and the excitement to apply them that night in a reading class at another location. A second student then mentioned participation in the same outside reading class and increased confidence to attend the following experiences in the workshop. Students also discussed recognition received in class as heightening their self-identification of success and perceived worth.

DISCUSSION

The addition of the voices and perceptions of the adult student participants with ID within this study contributes toward filling an identified gap in the literature. Related motivational curriculum components identified

as increasing learner engagement and perceptions of success may assist teachers of special education, inclusive, and typical learning groups in expanding their curriculum repertoire. Such approaches addressing individual student learning needs, pace, and style may contribute toward increased motivation through attention to and recognition of personal accomplishments and goals.

The findings of this study may also benefit educational leaders involved with the training of instructors in developing expanded, motivationally based recognitions and classroom goals. Leaders of special education departments within post-senior programs, lifelong learning programs for adults of all ages with ID, and community organizations housing these programs must continually develop their understanding of differences in the learning level, style, readiness, and motivation of the individual with special needs. All are interconnected, as the ability to address the first two areas influences the development of the latter (Gredler, 2009). These differences influence student responses to and internalization of class concept delivery and materials.

The limitations of this study included the selection of a small group of students and instructors. The group size may limit the ability to generalize findings to other environments and student groups. The study was also limited to a two-day expressive reading workshop. Although an appropriate match for the typical class size and learning timeframe experienced by students in classes in the environment for study, these limitations may affect the generalization of findings to other environments and student groups. Another limitation was the inclusion of experiential classroom work without reliance on tests or other ratings-based data. Studies focused on the assessment of grades or other comparative outcomes may require the addition of such sources within the triangulation of data.

RECOMMENDATIONS

Three recommendations are offered based on the findings of the study. Each contributes ideas for strategies in the special needs classroom. Final recommendations for future study identify potential next steps.

Recommendation One: Development of creative motivational materials. Students who were apprehensive engaged fully in reading work through the use of scripts and theatrical activities, employed as resources to build positive associations between class work and creative processes (Hirst et al., 2011).

Over 90% of students with a disability will learn in inclusive classrooms (AACTE, 2011). These students

may be required to learn from materials and methods designed for typical classes of learners. However, detachment from learning experiences can occur when students with ID do not have access to materials and supports that engage their ability to learn and encourage an increased personal connection to concepts. Leaders may leverage such understanding and increase responsiveness through awareness of research, training of staff, and development of teaching tools toward related best practices.

Recommendation Two: Develop methods leveraging motivational support.

Adult students with ID do not enter the classroom alone. They bring with them the residual anxieties from all previous educational environments with low expectations based on learning level and pace (Graham, 2015).

The potential of these students is often overshadowed by the stigma caused by misconceptions about their ability to learn. This point is reflected in the shortage of programs and data specific to their learning needs (Manthey, 2011). This fact can also be reflected in the insecurities of the students, requiring personal connection to materials for increased motivation through engagement, confidence, and learning satisfaction.

These students possess their own distinct opinions and understand their personal needs. However, those who instruct them do not always have the training to understand (Petner-Arrey & Copeland, 2015). Leaders focused on programs for training and professionals who work directly with adult students with ID can engage in the ongoing development of methods toward increased student expectations of and motivation resulting from experienced success. Such methods may increase engagement in classroom activities and provide intrinsic motivation through ongoing personal learning validation and support.

Recommendation Three: Develop Alternative Motivational Assessments. Educators must navigate budgets and resources often prioritizing areas other than processes to benefit a student's individual learning pace (Graham, 2015). Determining the results of such focused instruction would require alternative assessments addressing students' unique learning styles and needs (LoC, 2016). Increased focus on learners' successes can maximize their sense of self-advocacy, resulting in additional time for the instructor to address the needs of other learners in special needs and inclusive classrooms (Stockall, 2014). This increased self-advocacy and independence in the classroom may also translate to a student's independence in other areas of life.

Recommendations for Future Research: Keller (2008) also added a fifth category of volition to the ARCS model, titled the ARCS-V, which focused on the

sustainment of personal actions for continued work toward the achievement of goals. Potential applications of ARCS-V include use as a possible tool for future study of long-range motivation for learning.

The research was limited to a specific learning environment and topic area. Therefore, another recommendation for future study includes applications to other subject areas and learning spaces. Additional questions regarding best practices and evidence-based solutions could inform the functional use of future study results.

CONCLUSIONS

The work of this study adds to the professional discussion of strategies for the development and delivery of motivational curriculum for individuals with ID. Strategies include methods for increased student confidence and self-efficacy. The research also expands previous professional discussions related to studies of Keller's (1983) Motivational Design Theory (MDT) and related ARCS motivational instruction model (Keller, 2008) and applications to current instructional frameworks for classrooms of learners with ID. Contributions include results that inform future discussion related to the development of policy for ongoing formative and summative motivational learning assessments and methods for evaluation and analysis of motivational instructional approaches employed in classrooms including learners with ID.

The information may inform progressive efforts in areas of research, practice, and policy. The design and methodology of this study may also be useful in estab-

lishing approaches for other research methods for (1) delivery of motivational instruction, (2) production of new classroom tools for motivational assessment, and (3) development of new opportunities for students motivated and continued academic progression. Such continued research may contribute toward an increased understanding of perceptions of motivation within students with ID and enthusiasm for the continuation of their individual, ongoing journeys of higher education.

SUMMARY

Merriam and Tisdell (2016) discuss a unique representation of the bounded case study as a phenomenon depicted by a circle with a heart in the center. The heart is the focus and the circle the symbolizes definition of the edge of the study (Miles et al., 2014). The imagery matches the work of this and future research diving into that circle of the classroom to reach the heart of the adult learner with ID. The diving expedition of this research brought information to the surface for additional discussion of the students' expressed, intrinsic needs toward perceptions of personal motivation and learning success.

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REFERENCES

- AACTE, (2011). Improving Learning Outcomes for Students with Disabilities Through Reformed Preparation of General Education Teachers. American Association of Colleges for Teacher Education. Retrieved from <https://aacte.org/news-room/press-releases-statements/106-aacte-and-nclde-release-white-paper-on-improving-learning-outcomes-for-students-with-disabilities-through-reformed-preparation-of-general-education-teachers> (access: 2016/07/20).
- AAIDD, (2013). Definition of intellectual disability. American Association on Intellectual and Developmental Disabilities. Retrieved from: <http://aidd.org/intellectual-disability/definition#.V83dsl-cF2s> (access: 2016/09/04).
- APA, (2019). Intellectual Disability: What is Intellectual Disability? American Psychiatric Association. Retrieved from <https://www.psychiatry.org/patients-families/intellectual-disability/what-is-intellectual-disability> (access: 2016/09/03).
- Bandura, A. & Locke, E. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, 88(1), 87-99. <https://doi.org/10.1037/0021-9010.88.1.87>

- Bandura, A. (1996). Social cognitive theory of human development. In: T. Husen & T. N. Postlethwaite (Eds.), *International Encyclopedia of Education*, 2(1), 5513-5518. Oxford: Pergamon.
- Belzer, A. & Ross-Gordon, J. (2011). Revisiting debates on learning disabilities in adult education. *New Directions for Adult and Continuing Education*, (132), 75-84. Retrieved from: <http://search.ebscohost.com.ezproxy.apollolibrary.com/login.aspx?direct=true&db=eric&AN=EJ955046&site=ehost-live> (access: 2015/04/07).
- Berg, B. & Lune, H. (2012). *Qualitative Research Methods for the Social Sciences* (8ed.), New Jersey: Pearson.
- Bergstrom, H., Elinder, L.S., & Wihlman, U. (2014). Barriers and facilitators in health education for adults with intellectual disabilities: A qualitative study. *Health Education Research*, 29(2), 259-271. Retrieved from: <http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=eric&AN=EJ1064581&site=eds-live&scope=site> (access: 2016/07/13).
- Carnahan, C. & Fulton, L. (2013). Virtually forgotten: Special education students in cyber schools. *Tech Trends: Linking Research and Practice to Improve Learning*, 57(4), 46-52. Retrieved from <https://doi-org.contentproxy.phoenix.edu/10.1007/s11528-013-0677-6> (access:2015/05/01)
- Causton-Theoharis, J., Theoharis, G., Orsati, F., & Cosier, M. (2011). Does self-contained special education deliver on it's promises? A critical inquiry into research and practice. *Journal of Special Education Leadership*, 24(2), 61-78. Retrieved from: <http://search.ebscohost.com.contentproxy.phoenix.edu/login.aspx?direct=true&db=eue&AN=69905206&site=eds-live> (access: 2015/05/01).
- Courtade, G., Test, D. & Cook, B. (2014). Evidence-based practices for learners with severe intellectual disability. *Research and Practice for Persons with Severe Disabilities*, 39(4), 305-318. <https://doi.org/10.1177/1540796914566711>
- Dickerson, P., Robins, B., & Dautenhahn, K. (2013). Where the action is: A conversation analytic perspective on interaction between a humanoid robot, a co-present adult and a child with an ASD. *Interaction Studies*, 14(2), 297-316. <https://doi-org.contentproxy.phoenix.edu/10.1075/is.14.2.07dic>
- Dickhäuser, O., Reinhard, M., & Englert, C. (2011). "Of course I will ...": The combined effect of certainty and level of expectancies on persistence and performance. *Social Psychology of Education*, 14(4), 519-528. <https://doi.org/10.1007/s11218-011-9159-x>
- Dizdarević, A. & Ibralić, F. (2011). Adjusting the curriculum to meet the individual needs of students with intellectual disabilities in regular schools. *Special Education*, 1(1), 169-176. Retrieved from: <http://search.ebscohost.com.ezproxy.apollolibrary.com/login.aspx?direct=true&db=eue&AN=65412017&site=ehost-live> (access: 2016/07/18).
- Gagné, R. (2018). Gagné 's conditions of learning. *Education Today: Issues, Policies & Practices* (1), 92-98. Retrieved from: <http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=edsgvr&AN=edsgcl.7513000026&site=eds.live&scope> (access: 2019/04/09).
- Gibbons, M., Hyfantis, J., Cihak, D., Wright, R., & Mynatt, B. (2015). A social-cognitive exploration of the career and college understanding of young adults with intellectual disabilities. *Professional School Counseling*, 19(1). Retrieved from: <http://search.proquest.com.contentproxy.phoenix.edu/docview/1781553751/fulltext/F964C6B1CE0F4427PQ/2?accountid=35812> (access: 2016/09/03).
- Graham, L. J. (2015). A little learning is a dangerous thing: Factors influencing the increased identification of special education needs from the perspective of education policymakers and school practitioners. *International Journal of Disability, Development, and Education*, 62(1), 116-132. <http://dx.doi.org/10.1080/1034912X.2014.955791>
- Gredler, M. (2009). *Learning and Instruction: Theory into Practice*. Upper Saddle River, NJ: Pearson.
- Hirst, G., Van Knippenberg, D., Chin-Hui, C., & Sacramento, C. (2011). How does bureaucracy impact individual creativity? A cross-level investigation of team context influences on goal orientation-creativity relationships. *The Academy of Management Journal*, 54(3), 624. <https://doi.org/10.5465/amj.2011.61968124>
- Keller, J. (2008). An integrative theory of motivation, volition, and performance. *Technology, Instruction, Cognition & Learning*, 6(2), 79-104. Retrieved from: <http://search.ebscohost.com.ezproxy.apollolibrary.com/login.aspx?direct=true&db=eue&AN=34393165&site=ehost-live> (access: 2014/11/29).
- Keller, J. M. (1983). Motivational design of instruction. In: Reigeluth, C. (ed.), *Instructional-design theories and models: An overview of their current status*. Hillsdale, NJ: Erlbaum.
- LoC, (2016). Legislation: 103rd Congress: H.R.1804-Goals 2000: Educate America Act (1983-1984). Library of Congress Retrieved from: <https://www.congress.gov/bill/103rd-congress/house-bill/1804> (access: 2016/09/05).
- Manthey, T. (2011). Using motivational interviewing to increase retention in supported education. *American Journal of Psychiatric Rehabilitation*, 14(2), 120-136. <https://doi.org/10.1080/15487768.2011.569667>

- Matson, J. & Rivet, T. (2008). Characteristics of challenging behaviors in adults with autistic disorder, PDD-NOS, and intellectual disability. *Journal of Intellectual & Developmental Disability*, 33(4), 323-329. <https://doi.org/10.1080/13668250802492600>
- Merriam, S. B. & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation*. San Francisco, CA: Jossey-Bass.
- Merrill, M. D. (1994). *Instructional Design Theory*. Englewood Cliffs, NJ: Educational Technology Publication.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3 ed.). Thousand Oaks, CA: Sage.
- Moni, K., Jobling, A., Morgan, M., & Lloyd, J. (2011). Promoting literacy for adults with intellectual disabilities in a community-based service organization. *Australian Journal of Adult Learning*, 51(3), 456-478. Retrieved from: <http://search.ebscohost.com.ezproxy.apollolibrary.com/login.aspx?direct=true&db=eue&AN=71727971&site=ehost-live> (access: 2015/04/07).
- Neagu, S. (2016). A new vision of adult learning: Checklist-motivational factors involved in adult learning. *Elearning & Software for Education*, 1(2), 150-153.
doi: 10.12753/2066-026X-16-106
- Pai-Lu, W., Ching-Hwa, T., Tzu-Hui, Y., Sih-Han, H., & Che-Hung, L. (2012). Using ARCS model to promote technical and vocational college students' motivation and achievement. *International Journal of Learning*, 18(4), 79-91. Retrieved from: <http://search.ebscohost.com.ezproxy.apollolibrary.com/login.aspx?direct=true&db=eue&AN=73353023&site=ehost-live> (access: 2013/03/17).
- Petner-Arrey, J. & Copeland, S. R. (2015). "You have to care." Perceptions of promoting autonomy in support settings for adults with intellectual disability. *British Journal of Learning Disabilities*, 43(1), 38-48. <https://doi.org/10.1111/bld.12084>
- Ripat, J. & Woodgate, R. (2011). The intersection of culture, disability and assistive technology. *Disability & Rehabilitation: Assistive Technology*, 6(2), 87-96. <https://doi.org/10.3109/17483107.2010.507859>
- Stockall, N. (2014). When an aide really becomes an aid: Providing professional development for special education paraprofessionals. *Teaching Exceptional Children*, 46(1), 197-205. <https://doi.org/10.1177/0040059914537202>
- Wentzel, K. & Wigfield, A. (1998). Academic and social motivational influences on students. *Educational Psychology Review*, 10(2), 155. Retrieved from: <http://search.ebscohost.com.ezproxy.apollolibrary.com/login.aspx?direct=true&db=a9h&AN=671180&site=ehost-live> (access: 2014/07/28).
- Wilson, H., Bialk, P., Freeze, T., Freeze, R., & Lutfiyya, Z. (2012). Heidi's and Philip's stories: Transitions to post-secondary education. *British Journal of Learning Disabilities*, 40(2), 87-93. <https://doi.org/10.1111/j.1468-3156.2012.00746.x>
- Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6 ed.). Thousand Oaks, CA: Sage.