

Under a Banathy Lens:
A Systems-Environment View of
Continuing and Distance Education Services
School District 57, Prince George, British Columbia

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Introduction

Public education K-12 schools whether face-to-face neighborhood schools or distance education organizations are complex human activity systems “embedded in interconnected systems that operate in dynamically changing turbulent environments” (Banathy, 1995, p.53). Their very complex, relational arrangements and inter-system dynamics, organizational structures, and organizational behaviors require a systems view for analysis and problem solving, as opposed to using traditional scientific reductionism. Banathy (1995) provides three systems models or “...lenses...”(p.55) that are applicable to education, and that aid in developing a systems view. Using Banathy’s Systems-Environment lens to view Continuing and Distance Education Services (CDES), School District 57, Prince George, British Columbia allows us to better see and understand the inter-system dynamics and relational arrangements between the CDES system and its environment.

Through the Systems-Environment Lens

Each of Banathy’s models “provides a different perspective or lens for [seeing] the underlying structure of a system” (Cookson 1998, p.5). The Systems-Environment lens focuses on the extensive environment surrounding CDES, and its interactions with that environment. Though system boundaries are arbitrary and fuzzy, the first logical CDES system boundary is between CDES and its parent organization, School District 57 (SD57). CDES functions within the context of its parent organization. It functions within two additional unique contexts. First, it is a member of the Distance Education Consortium, a collection of nine distance education (DE) institutions in British Columbia. Secondly, CDES is the only SD57 School that must meet specified distance education guidelines and expectations from the Ministry of Education. These three contexts together – parent organization, Distance Education Consortium, and DE Ministry directives – are herein referred to as the systemic environment. The second logical boundary is the environment that extends beyond CDES and SD57, herein referred to as the general environment. Both the general system environment and the systemic system environment are important points of reference on which to focus the lens.

Many different factors may be used to describe the general system environment. This paper adopts those suggested by Cookson (1998, p.6). Table 1 summarizes the general environmental factors surrounding CDES.

Table 1. General Environmental Factors for CDES

Factors	Details
Geographic	<p>The area of educational delivery is two fold:</p> <p>For the parent organization, K-12 and Adult education delivery area is the city of Prince George, British Columbia and the sparsely populated widely separated communities of McBride, Valemont, and MacKenzie.</p> <p>An additional mandate to provide Distance Education services to sparsely populated, widely separated, somewhat isolated communities, spread over an extensive region of British Columbia, covering approximately ¼ of the landmass and reaching from the coast to the provincial border with Alberta</p>
Demographic	<p>Approximately 20% of the population over 18 years of age has less than secondary school graduation. There are declining neighborhood school enrolments at K-12 level that forced 13 school closures in the school district over last two years. Population decline has slowed.</p>
Economic	<p>Unemployment in area was as high as 16% over last two years, down to 10% unemployment. Forest industry that is the mainstay of most communities is still struggling. Many communities impacted by US-Canada Softwood Lumber Agreement. Mining resource sector is beginning to turn around. Retail sector is experiencing major expansion. Rebound is on the horizon. Lack of sufficient funding for Education</p>
Social	<p>Significant change from ‘neighborhood school’ concept and school closures have disrupted families. Continued changes in societal structures and support in general as a result of governmental policy changes.</p>
Technological	<p>Excellent high-speed infrastructure in many areas, but some widely dispersed areas still with low bandwidth. A variety of communication tools available for educational purposes. Ministry of Education pilot projects for Video Conferencing distributed learning underway. Emphasis by Ministry of Education on e-learning delivery for Distance Education. Continued governmental desire to expand technological services.</p>
Cultural	<p>Wide spread access to educational opportunities in</p>

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	urban areas but widely separated communities have less access. Desire for increased opportunities for learning.
Ideological/Political	Major change in government mandate from socialism based to capitalism based. Election approximately 1 year away. Could swing again. Serious conflicts between British Columbia Teachers Federation (teacher union) and Government.
Historical	There exists a well-established history of Distance Education services. Cultural factors are favorable to increased DE delivery. Distance Education Consortium with a long history of existence. Continuous upheaval of graduation requirements, new curriculum updates, reporting procedures, planning expectations.

For the CDES system to flourish, a number of inputs and outputs must cross ‘breaks’ in the system boundary, both to and from the systemic environment. The inputs are “factors that shape the definition of the system” (Cookson, 1998), and take the form of expectations, policies, directives, system constraints, human and financial resources, audits, funding, information, knowledge, materials, and facilities. Outputs from CDES to the systemic environment take the form of joint activities, recommendations, resources, requests, reports, and lobbying. Neither of these lists is exhaustive, but both provide a starting point for focusing the System-Environment lens. Table 2 summarizes the systemic environmental factors surrounding CDES

Table 2. Systemic Environmental Factors for CDES

Factors	Details
Inputs to CDES	
Expectations	<p>SD57</p> <ol style="list-style-type: none"> 1. The mission of CDES is three fold, provide Adult Basic educational services and all Community Alternate Programs educational services in SD57, as well as K-12 courses for neighborhood school students for all schools in SD57 2. Develop the Central Interior Distance Educational School expanding it to include online delivery. 3. Online initiatives are based on the districts “distributed model” and any school can participate in developments. 4. Ensures CDES maintains School Plan for Student Success, Parent Advisory Committee, and

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	<p>School Planning Councils</p> <p>Distance Education Consortium (DEC) 1. Shifted emphasis in Distance Education to online learning environment utilizing best practices and quality pedagogy. 2. Focused online course development on a constructivist approach. 3. Active involvement in Consortium expected.</p> <p>Ministry All policies regarding DE 1701 fully funded students must be met in scheduled audits.</p>
Policies	<p>SD57 - Provides school operations policies, technology standards, district wide curriculum initiatives. Disseminates Ministry policy and curriculum changes. CDES required to meet all SD57 technology policies.</p> <p>DEC – Conveys new Ministry policy directives to CDES regarding DE.</p> <p>Ministry – Provides distance education – electronic learning policies that must be adhered to.</p>
Constraints	<p>SD57 – All strategic planning must be vetted by SD57. SD57 established the payment of \$250 by a neighborhood school for a course taken through CDES, which is well short of the \$630 that is reflective of the value of the course.(8 courses @ \$5048 (for fully funded student) = \$630)</p> <p>Ministry, DEC – geographical area of DE delivery is determined by DEC and Ministry. Boundaries are opening, results yet to play out. No clear directives.</p>
Human Resources	<p>SD57 – Staffing decisions often determined by SD57 needs, rather than CDES needs.</p>
Financial Resources	<p>SD57 – Has not yet determined an equitable arrangement of funding for students registered in neighborhood schools taking DE courses at CDES. Provides funding for special initiatives. Establishes staff funding formulas. Only in the last 2 years has SD57 funded CDES on par with neighborhood schools of the same student population.</p> <p>DEC – Provides course development funding for partnership projects.</p>

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	<p>Ministry – Determines funding formulas for all students. New funding formulas for CE to be implemented based on completion rates will seriously impact school funding.</p>
Materials	<p>SD57 – Co-ordinates bulk purchasing, software site licensing, best pricing, etc.</p> <p>DEC – Co-ordinates site licenses for DE tools and software.</p>
Facilities	<p>SD57 – Determines the physical plant occupied by CDES. Co-ordinates and approves all moves, leases, etc. Has consistently delayed establishing all “major pieces” of CDES into one location. Current decisions are handicapping merger and limiting needed online developments. Need for CDES to establish in one building not met in a timely manner.</p>
Outputs from CDES	
Joint Activities	<p>SD57 – CDES seeks assistance to co-ordinate projects for online course development. Partners for district wide initiatives.</p> <p>DEC – CDES seeks partnerships for online course development with consortium schools</p>
Recommendations and Requests	
Resources	<p>SD57 – CDES provides neighborhood school administrations and students choices and alternatives for student educational opportunities.</p> <p>DEC – CDES provides leadership and financial resources to maintain the Consortium</p>
Reports	<p>SD57 – CDES analyzes and reports on state of School Plan for Student Success yearly</p>
Requests and Requirements	<p>SD57 – CDES initiated talks this year for development of a district wide vision for e-learning.</p>
Lobbying	<p>DEC – CDES provides leadership within the consortium for lobbying the Ministry on behalf of consortium schools.</p>

Summary

Banathy’s Systems-Environment lens provides greater clarity to a complex human activity system, by examining factors in its environment. The lens confirms that inclusion of DEC and the Ministry of Education with SD57 in the systemic environment is appropriate. Both have a direct impact and influence

on CDES in the same manner that SD57 does. CDES has a strong connection to DEC and the Ministry of Education. CDES has a unique systemic environment compared to other schools in the district. Decisions by the School District have serious impact on its CDES subsystem. An awareness of the developing winds of change in the general environment that may soon affect CDES is brought to light.

Visionary and forward thinking administrators need tools to examine and monitor their systems as environments change. As Cookson (1998, p.20) expressed it, the Systems-Environment lens “provides useful insights about the “ecology” of [the CDES] system”. This lens provides only one perspective on CDES. Applying the other two Banathy lenses and superimposing the results gives a composite picture - a composite systems view of Continuing and Distance Education Services. Meanwhile the Systems-Environment lens allowed us to understand the inter-system dynamics and relational arrangements between the CDES system and its environment.

Endnotes

1. Data provided based on analysis of 2001 community profile data for Prince George obtained from Stats Canada.

References

- Banathy, B.H. (1995). Developing a systems view of education. *Educational Technology* (May/June), 53 – 57.
- Cookson, P.S. (1998). Settings for distance education: A comparative study of two organizational systems. *Staff Papers*. Athabasca University. (as cited in (2004) Systems Design in Distance Education: Master of Distance Education 603 Readings, *Athabasca University*. p.35)