

A Multi-disciplinary Use of the Critical Incident Cycle: A Didactic Model



Dagmar Siegllová

ABSTRACT:

Critical incidents (CIs) refer to memorable situations from an individual's life that contribute to the formation of their future decisions, behaviors, and actions. During WW2 and even after, CIs were used in varied professional settings, including the army, navy or air force, to analyze job performance and measure proficiency. Later, their use expanded to other areas such as dental medicine or counselling psychology to manage human behavior or to professional settings, such as business, to improve recruitment and leadership. More recently, CIs were adopted to facilitate intercultural dialogue and for teaching and training purposes. This text examines their wider use in higher education and beyond as tools to accelerate personal growth, professional development and life-long learning.

Launched in 2017, this study is a part of a longitudinal project conducted at a private university with master's degree students of Business English. CIs in the form of written narratives are collected in this project to record varied memorable moments from the students' interaction in English locally or abroad. Six sample CIs structured as a report, reflection and reevaluation of each experience from the lens of the participant were selected from the data corpus for this text in order to describe the Critical Incident Cycle (CIC) and propose a didactic model for a multidisciplinary use. The data show the CIC model is a potent means for not only enhancing language and communication skills, but also developing a complex set of other intrapersonal and soft skills applicable in the world of the current social reality. Relevant recommendations for practical implications for the use of CIs in education, human resource management or social sciences are made.

ABSTRAKT:

Kritické incidenty představují významné životní situace, které přispívají k formování chápání, rozhodování, chování a jednání jednotlivců. Počátky práce s kritickými incidenty se datují do období druhé světové války, kdy byly využívány nejprve v armádě, námořnictví nebo letectví pro účely analýzy pracovního výkonu a měření kompetencí. Později se tato metoda rozšířila do dalších oblastí, například v lékařství nebo v psychologii sloužily kritické incidenty k usměrňování lidského chování, v profesionální a obchodní sféře pak k optimalizaci náboru a řízení lidských zdrojů. Na přelomu tisíciletí našly kritické incidenty využití k usnadnění mezikulturního dialogu a ve vzdělávání. Tato studie se zaměřuje na možnosti práce s kritickými incidenty ve vysokoškolském vzdělávání i mimo něj jako s nástrojem k osobnímu a profesnímu rozvoji a k podpoře celoživotního učení.

Sběr kritických incidentů, ze kterého tato studie čerpá, byl zahájen v roce 2017 v rámci projektu realizovaného na soukromé vysoké škole se studenty magisterského studia v předmětu obchodní angličtiny. Kritické incidenty jsou zaznamenávány studenty ve formě psaných příběhů, které zachycují významné okamžiky z interakce v angličtině jak v domácím prostředí, tak v zahraničí. Z nashromážděných dat bylo pro tento text vybráno šest ukázkových kritických incidentů obsahujících popis situace a kritického momentu, vlastní postřehy a hodnocení zkušenosti z pohledu účastníka. V práci je popsán kritický incident jako cyklus emocí, myšlenek a chování člověka na úrovni jak okamžitých, tak pokročilých reakcí účastníků a je navržen didaktický model pro multidisciplinární použití. Data ukazují, že tento model je účinným nástrojem nejen pro posilování jazykových a ko-



munikačních dovedností ve vzdělávání, ale i pro rozvoj celého souboru dalších jemných a intra-personálních dovedností využitelných ve světě práce. Praktické využití kritických incidentů proto přesahuje oblast vzdělání, přičemž nalézá širší využití v oblasti řízení lidských zdrojů, vedení lidí a společenských věd.

KEY WORDS:

critical incidents, didactics, language education, key competences, personal growth, human resource management

1 CRITICAL INCIDENTS

Critical incidents (CIs) take upon a wide range of definitions depending on the field and time when they have been used (e.g., Apedaile & Schill, 2008; Butterfield et al., 2009; Cope & Watts, 2000; Flanagan, 1947; Siegllová, 2022; Spencer-Oatey, 2013; Wight, 1995). They are generally grasped as life situations that deviate from the expectations of normality and usually catch a person unprepared. Given their atypical nature, they affect emotions, induce reactions, assume quick decisions, and result in action. Charged with a strong emotional force, either negative or positive, CIs become deeply ingrained in a person's memory. As such, they can be revisited and serve as a model resource molding one's decisions, behaviors, and actions in analogic situations later in life. Simply said, CIs never leave a person the same, and thus notably contribute to an individual's personal development. This study proposes that considering new CIs accumulate over one's whole life, they are a hidden yet potent agent navigating people's life-long learning.

CIs have inspired abundant terminology in various scientific fields proving their potential for a multi-disciplinary use. They come in varied forms and serve as model situations in varied specializations and fields. As oral testimonies, storytelling, or anecdotal remarks, written narratives, informal observations, or collected in a pre-structured format, they can remain either barely noticed by the person involved or used as data for a second party in an organized form. Given their profound practical potential, they can be used to foster education and personal development in manifold social practices.

1.1 EARLY DEVELOPMENTS

CIs first appeared as a method for qualitative research with a broad practical application in the United States around the time of the Second World War (Flanagan, 1954). The CI approach was first employed at this time in the military practice of the American army, but soon, made its way to the public and educational sphere.

The Aviation Psychology Program of the USAAF was one of the first to adopt CIs for recruitment purposes. The program's first two studies analyzed reasons for pilot failures (Flanagan, 1947; Miller, 1947). The subsequent studies focused on identifying incidents of experienced effective and ineffective behaviors recollected from the active duty of war veterans (Wickert, 1947) in order to improve battle leadership and organization.

A group of psychologists from the USAAF soon established a scholarly non-profit organization the American Institute for Research (AIR) focusing on systematic research in human behavior that led to the development of the critical incident technique (CIT) as a fully established research procedure. Following the initiatives from the Aviation Psychology Program, their first tasks aimed at defining job requirements, including aptitudes and personal characteristics, for air force officers (Preston, 1948) or pilots (Gordon, 1947, 1949). Similarly, projects studying requirements for personnel in physical sciences (Flanagan, 1949) and for air route traffic controllers (Nagay, 1949) followed. The CIT then penetrated into the industrial sphere where it was applied to record the quality of job performance of the employees for the General Motors Corporation (Miller & Flanagan, 1950).

Many studies of the CIs also emerged from varied scientific projects conducted at the Department of Psychology at the University of Pittsburgh (Pitt) by Flanagan's students in the form of doctoral theses (Flanagan, 1954), studying requirements, proficiency, and general abilities in varied professions, e.g., dentists in medicine, industrial foremen in the Westinghouse Electric Corporations, managers in life insurance agencies, instructors of general psychology courses, or sales clerks in department stores. Based on finding a higher occurrence of ineffective behaviors in students with respect to study and behavioral issues (Eilbert, 1953), CIs were used by the faculty to determine emotional immaturity and develop a relevant classification system. This in fact set up the basis for using the CIT to study personality and human behavior.

By the time of the early studies, several practical applications of the CIs embracing varied approaches to the method can be found (Flanagan, 1954). Both studies of the USAAF and AIR first used the CIs to measure and evaluate job performance or proficiency including aptitudes and abilities in varied job positions, such as pilots, teachers, or chefs. This contributed to improving the recruitment procedures by defining more specific job requirements, as well as helping develop specific training programs of new employees as a first record of using the CIs for educational purposes. The results of the aforementioned studies also lay the foundation for refining operating procedures or adjusting work environment and tools. The use of CIs as a "very valuable supplementary tool for the study of attitudes" (Flanagan, 1954, p. 28), as mainly determined by the works from the Department of Psychology, Pitt, can then be seen as first probes to study leadership and motivation or counseling and psychotherapy.

1.2 THE CRITICAL INCIDENT TECHNIQUE (CIT)

The early research employing CIs resulted in the CIT, first described by John Flanagan in 1954 as an established qualitative study research five step scientific procedure (Figure 1). While allowing for flexible data collection and analysis typical for qualitative research, the CIT remains in the traditional scholarly boundaries, starting with a clearly identified purpose of the study, including the statement of research questions or hypotheses that mainly follow, and thus emphasize, a practical use of CIs. Prior to choosing the methods for data collection and analysis, constituting the third step, questions of relevance are posed in order to ensure a plausible choice of setting, participants, and related objectives. The amassed data get further assessed and





interpreted according to emerging thematic categories. Upon considering potential bias and limitations against the general aim of the research, the final results get advanced for their intended practical use.

Step 1: General Aims	
Identifying the purpose of the study and posing research questions	<ul style="list-style-type: none"> — Measures of typical performance — Measures of proficiency — Training — Selection and classification — Operating procedures — Equipment design — Motivation and leadership — Counseling and psychology
Step 2: Plans and Specifications	
Addressing questions of relevance and objectivity	<ul style="list-style-type: none"> — Situations to be observed — Relevance to the general aim — Extent of effect on the general aim — Persons to make the observations — Groups to be observed — Behaviors to be observed
Step 3: Collecting the data	
Choosing methods for data collection and analysis	<ul style="list-style-type: none"> — Interviews — Group interviews (focus groups) — Questionnaires — Record forms
Step 4: Analyzing the data	
Summarizing and describing the data to be used and to maximize their practical usefulness	<ul style="list-style-type: none"> — Selecting a relevant frame of reference — Formulating a set of major categories — Placing the incidents into the categories
Step 5: Interpreting and reporting	
Weighing potential overgeneralizations or bias and identifying limitations of the research	<ul style="list-style-type: none"> — Reviewing the general aim — Evaluating the data — Reporting the value of the results

FIGURE 1: The Critical Incident Technique.

The CIT defined by Flanagan (1954, p. 327) as “a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems” entered further professions around the new millennium but changed during the upcoming decades because of multiple perspectives. First, the technique penetrated further social and scientific areas, continually proving its wide applicability within multiple fields. Besides the aforementioned army, industrial or business psychology settings, the CIT was further adopted in the first decade of the 21st century in health sciences, specifically in nursing, medicine, or dentistry. It also saw preliminary application in a number of fields, such as psychology, counselling, communications, job analysis, marketing, or social work (see FitzGerald et al., 2007), or in education and teaching practice (see Butterfield, 2005).



The second direction the CIT took in its post-war development relates to the procedures used. Starting with the emphasis on behaviorally grounded expert “direct observations”, as originally conceived by Flanagan (1954), “retrospective self-reports” (Butterfield et al., 2005) of the participants dominated the studies toward the end of the millennium. This turned the CIT, as Butterfield (2005, p. 482) puts it, from a “task analysis tool” that helps “to uncover existing realities or truths so they could be measured, predicted, and ultimately controlled” into an “investigative and exploratory tool” (*ibid.*, p. 489) that puts a strong emphasis on flexible, practical applicability within a particular professional area. What accompanies the diversification of the approaches to the use of the CIT is the aforementioned proliferation of terminology yielding new variants of terms, e.g., the CI analysis (Gould, 1999), CI exercise (Rutman, 1996), CI study technique (Cottrell et al., 2002), or CI reflection (Francis, 1995).

The flexibility of the technique, however, raised new questions, specifically concerning the validity of the methods, as exact descriptions of the data-analysis procedures were frequently missing in the earlier studies. As a result, a team of researchers from the University of British Columbia (UBC) (Butterfield et al., 2005, 2009) introduced a refined version of the technique known as the Enhanced Critical Incident Technique (ECIT). One of the adjustments the ECIT research procedure brought is keeping more exact records of the data, including taping during oral testimonies, to achieve their higher descriptive validity. This approach allows not only for retrospective accuracy checks, but also for more exact raw data, more specific data analysis, as well as enhanced exhaustiveness and trustworthiness of the results. With this in mind, the researchers defined nine credibility checks (Figure 2) for the final stage of the procedure.

Enhanced Critical Incident Technique: Nine credibility checks	
1. Audiotaping interviews	Enhancing accuracy of the account
2. Interview fidelity	Following established protocols and using interview guides
3. Independent extraction of CIs	Collecting and analyzing by a different person
4. Exhaustiveness	Keeping a log with statistical information of each interview
5. Participation rates	Keeping a record of the participant number with every CI
6. Placing incidents into categories by an independent judge	Randomly choosing a sample of a CIs set for an independent assessment
7. Cross-checking by participants	Conducting a second interview with participants for follow-up questions
8. Expert opinions	Submitting the chosen CI categories for an expert confirmation
9. Theoretical agreement	Comparing emergent categories with relevant scholarly literature and articulating any assumptions underlying the study

FIGURE 2: ECIT — Nine credibility checks.



1.3 LATER DEVELOPMENTS

New trends in the development of the CIT emerged around the turn of the millennium when the method further evolved, as Butterfield et al. (2009) put it, from “uncovering context” to “capturing meaning”. This, according to the authors, led to changes in the CIT range and terminology. New studies of the CIs, originally mere descriptions of the events, started taking participants’ reflections, comments and interpretations into account. This approach set up a new direction in the use of CIs for the future, treating them as significant life events and allowing for a more profound introspection into the participants’ experience. Correspondingly, a redefined term — a “revelatory incident” — was introduced as an alternative to the CI in selected studies as a result (Keatinge, 2002, p. 34). In this form, the use of the CIT spread into further areas and disciplines, encompassing intercultural studies (e.g., Apedaile & Schill, 2008; Brislin, 1986; Cope & Watts, 2000; Spencer-Oatey, 2013; Tripp, 1993; Wight, 1995), information literacy research (Hughes, 2012), forensic criminology (Matoušková, 2013), and the like.

1.4 CRITICAL INCIDENTS AS AN AVENUE TO PERSONAL GROWTH

The use of the CIT in intercultural studies significantly contributed to the work with CIs with new paradigms and perspectives (in Spencer-Oatey, 2013). Selected studies capture the term “critical” as self-defined or self-interpreted “turning-points in a person’s life” (Tripp, 1993, p. 105), or as “moments of prime importance” (Cope & Watts, 2000, p. 112) mostly associated with extreme behaviors or emotions that get interpreted by the participants. Based on this, CIs are now also viewed as a tool to accelerate personal growth, for example to boost the general “process of learning and growing self-awareness” (*ibid.*, p. 113), to “develop an increasing understanding of and control over professional judgement” (Tripp, 1993, p. 24), or to enhance intercultural competence. Correspondingly, varied CIs from intercultural encounters have been collected, analyzed, and sorted into relevant categories (Spencer-Oatey, 2013) and applied to promote intercultural dialogue through training courses or materials in the form of exercises, role-plays, simulation games, or as a “culture assimilator” (e.g., Brislin, 1986; Wight, 1995).

Varied methodological approaches to the use of CIs in the intercultural field can be found. For example, Spencer-Oatey & Davidson (2013) introduced a four-step portfolio guiding the participants of the CIs through an analysis of their experiences structured into reporting about them, reflecting on them, and reevaluating them in order to use their insights in practice. In contrast, Keatinge (2002) developed a form to analyze CIs from the perspective of an observer guiding the researcher to document the CIs as a three-step process. This process consists of brief descriptions of the situation, an analysis of the following action as well as a description of the outcome of the action.

The purpose of this study is to absorb the personal insights of individuals and show the CIs as a learning process occurring on the emotional, cognitive, and behavioral levels, which, if elevated to the metacognitive and meta-behavioral level, leads

to explicit realizations and controlled behaviors. Using a corpus of data, a didactic model will be proposed and described as a tool applicable for wide-spread educational use across disciplines contributing to foster individuals' personal growth.



2 METHODOLOGY

The data used in this study are written narratives by Czech higher education institution (HEI) students from business English courses specialized in management, motivation, and intercultural communication taken from a longitudinal study launched in 2017 and further expanded by an Erasmus+ international partnership project CI-ICPD (Critical Incidents in Intercultural Communication and Promoting Diversity) running between 2020 and 2023. The participants were master's degree students 22–25 years in age specializing in economics and management. Each student completing the language course since 2017 contributed with three CIs, building a database of nearly 400 narratives up to date. All CIs refer to situations the students were facing in varied international settings when foreign languages were used, for example, during their studies or internships locally or abroad, in their free time, or during travels.

In their testimonies, written in English, the students used a predefined form applying the 3RA tool (Spencer-Oatey & Davidson, 2013, p. 1), based on which they structured their analyses into four sections: Report — Reflect — Reevaluate — Act. This allowed them to not only include the description of the participants, settings, scene, and the experienced event (Report), but also add their reflective accounts upon the experience (Reflect), followed by their realizations of their roles and learning (Reevaluate), including descriptions of lasting decisions made, behaviors changed, and actions taken (Act). Based on six CIs selected from the data corpus as samples clearly illustrating the CI as a cyclical process, a Critical Incident Cycle model (Figure 3) will be proposed in the following section and subsequently described as a pedagogical model for teaching and learning across disciplines.

2.1 CRITICAL INCIDENT CYCLE (CIC)

The structure of each of the student testimonies reveals a sequence of mutually interacting human processes. In particular, every CI consists of a description of a critical moment that triggers an affective reaction. This reaction corresponds to the situational interpretation and is further reflected in how the person decided to react in the actual moment. The immediate interpretations and actions then get reevaluated as new realizations are made, controlled behaviors planned, or changes in actions and thinking implemented.

Following this logic, five stages of how CIs are processed by their participants can be observed and described in each of the analyses, dividing the CI into a reactive and reflective part. The reactive phase starts at the critical moment when a deviation from normality is noticed. This moment triggers emotions that result in an affective reaction and activate cognition when implicit immediate understanding of the event is sought. Based on the momentary interpretation substantiating for the emotion the



person then makes situational decisions choosing suitable behaviors that lead to a spontaneous reaction. The reflective phase then starts with metacognition when the person's impulsive interpretations and behaviors get reassessed and reevaluated in retrospect. Reaching explicit understanding of the event further reflects in meta-behavior when adjustments are planned and implemented to control the person's behaviors, decisions, and actions thereafter. This cycle repeats as a spiral process accumulating new critical encounters over the course of a person's whole life. To facilitate understanding of the proposed Critical Incident Cycle (CIC) model illustrated in Figure 3, individual stages of a CI will be explained in detail below.

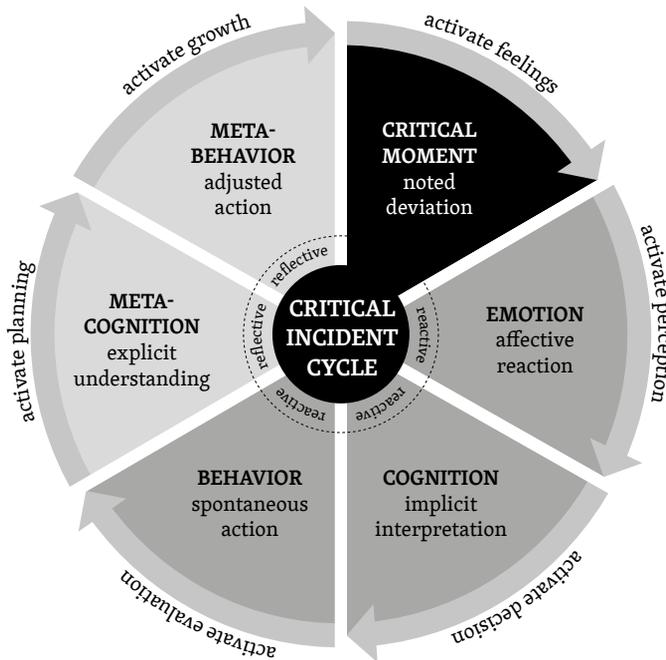


FIGURE 3: The Critical Incident Cycle.

Critical moment: The basic CIC starts with the occurrence of a critical moment. An incident qualifies as critical at the moment the participant is confronted with a deviation from his/her normative experience, i.e., an unexpected situation extending beyond what the person regards as normal based on his/her previous knowledge, experience, or behaviors adopted in life. This deviation requires a series of immediate processing and reactions. The critical moment is usually defined in the reporting part of the incident as a description of the situation as a whole, including the participants, setting, scene, and the pertinent deviation from the norm.

Emotion: The confrontation with the critical moment triggers an immediate affective reaction in the form of strong, either positive or negative, feelings. Emotions are part of the reactive phase of the CI, which the participants describe as varied affects or

feelings, such as pleasant or unpleasant surprise, shock or astonishment, discomfort or pleasure, disappointment or satisfaction, pride vs embarrassment or humiliation, sadness vs happiness or joy, stress or arousal, fear or relief, to name a few.

Cognition: The emotional reaction then stimulates cognitive efforts seeking understanding, interpretation, or meaning of the event substantiating for the feelings in order to react. These perceptions are construed on the base of the participants' previous experiences, their range of existing knowledge, as well as their sociocultural background. As part of the reactive phase, quick spontaneous judgments and first-hand realizations of social roles, identity, beliefs or values are made, preparing the participant to take an adequate step. In the testimonies, the participants describe them as their first primary reasoning, which includes interpretations as justifications for their attitudes, decisions, and actions adopted in the upcoming course of events.

Behavior: The first implicit interpretations yield a corresponding behavioral reaction drawn from how the person understands the current situational context. These include various spontaneous acts that did or did not happen with minimum or no hesitation, for example, decisions made, strategies set, and actions taken or not taken. The participants describe them as immediate reactions they saw adequate or meaningful in the current moment.

Metacognition: After the first emotional, cognitive, and behavioral reaction, the experience becomes a subject of further contemplation allowing for the application of wider knowledge, experience, or research. The person starts a metacognitive process of critically reevaluating her/his own primary interpretations and performance in order to gain more explicit understanding of the situation. Based on this, s/he can formulate the lesson learned and set up decisions, strategies, and plans to keep control under analogic situations in the future. The reflective part of the testimonies includes admitting and revising errors in judgement, biases, and misinterpretations in wider contexts, for example, redefining social roles, identities, personal beliefs and values, as well as gaining self-esteem, self-realization, visions, and motivation for learning.

Meta-behavior: Upon reevaluation and critical assessment of the implicit interpretations and momentary reactions in a given situation, the person starts recognizing and defining desirable behaviors. The newly gained experience thus carries a learning force transferable to future performance in wider areas of the participant's life and leads to positive behavioral changes. Meta-behavioral processing described in the data shows the participants' enhanced ability to think before acting, i.e., to monitor, control, regulate, or correct their future behaviors. These behaviors are implemented with a varied degree of delay. Some of the testimonies report about concrete behavioral changes either in concrete situations or implicitly. Some narratives indicate a determination for adjusted behaviors in the future, and others are at the stage of unrealized plans, showing each participant's momentary unreadiness to execute their decisions.

In sum, the data show both examples of implementation of a positive change into the participants' everyday actions, i.e., a closed cycle with an evincible outcome, as well as examples of a defined desired action with postponed (unhatched) implemen-





tation into practical life. Thus, the CIC can be viewed as a spiral process. Any potential barrier to converting experience into “lessons” becomes a new CI with potential for additional educational outcomes. Analyzing critical situations in these terms can significantly enforce the learners’ personal growth and develop their willingness and ability to learn in the course of their whole life.

3 DATA ANALYSIS

This section will demonstrate the learning force of the CIC model on six selected CIs taken from varied contexts, including school, work, sports, and travel with an accent on particular skill attainment in the areas of language, intercultural communication, and other soft or intrapersonal skills. The 3RA structure of the students’ narrative form allows for easy identification of all individual stages described in the CIC model and will be accentuated in each CI analysis. Individual stages of the CIC, however, are not always explicit in the narratives. Some can be found in a concealed form or need to be inferred from the remaining context, and some are described in a reversed order. Each of the selected CI also indicates a varied degree of implementation into the students’ practical lives.

3.1 CRITICAL INCIDENT 1: A RUSSIAN GIRLFRIEND

The theme of the first incident is breaking stereotypes in intercultural contact as described by a Czech male student while on an international summer camp. He first reports about the general context of the incident, including the time, location, setting, participants, scene, and communication codes:

My mother is a good person, but she always really disliked Russians, she was hostile against anything Russian and somehow managed to transfer her deep annoyance of anything of eastern character on young and innocent me. When I was thirteen, I had similar point of view and stance against Russians and Russian things like her. But then I left for a summer camp I visited every year since I was six. This year, I was there with other friend than other times. I really liked one girl there, I didn’t know her name or anything and we just chatted all the time. After something like a week later, all camp was gathered around the main supervisor who was reading winners of some competition.

The narrative shows that the incident takes place during the school summer break, at a children’s summer camp during a prize ceremony, most likely located in the student’s home country, since no indication of another country is made, with him and a female friend as the main characters in the event. Learning the Russian name of the girl was a surprise to him, Czech language was a native language for both. As the description of the CI elaborates the critical moment, the student reveals his negative reaction (emotion) and immediately reflects on it indicating his implicit interpretation of the event (cognition):



He read a few names and then this one: Julia B. and at that second he read it, I was already annoyed with that Russian name. But then the girl I was talking the whole week to went for the prize.

As seen in this part, the critical moment translates into the conflict between the student's unconscious biases against Russians and the amicable personality of his Russian girlfriend simply not fitting his existing image of a "Russian". The emotion interpreted as annoyance derived from his initial negative attitudes toward the nationality. However, it did not lead to any related impulsive action (behavior), as the student instantaneously reevaluates his primary interpretation (metacognition):

It wasn't a sudden life changing moment, but it was intense enough for me to realize that there might be a few (possibly many more than I thought) good Russians, Ukrainians and other people of eastern nationality.

Upon reaching the explicit understanding, he proceeds to rationalize behavioral adaptation (meta-behavior):

I realized that I might shape my point of view a little bit and stop receiving everything from my parents (respectively everyone) as an undisputable truth. Now I know a few Russians and many Ukrainians and most of them are totally cool people without any arrogance in them. I am thankful for this incident.

As the final part of the incident description proves that in this student's case, the experience led to a mended general attitude to people from the post-Soviet region and proved his ability to transfer this experience into wider contexts later in his life, which becomes obvious from a general note which the student used to introduce his incident analysis:

One of my biggest life changing situations is something that greatly alternated my future life in many small things.

In short, this incident helped the student to reevaluate and modify previous biases formed in the environment of his family when confronted with reality in his own life. The learning point contributing to his personal growth is the realization of the importance of making his own judgements, which is the principle of critical thinking skills. Through this experience, in addition, he also refines his interpersonal as well as intercultural communication skills necessary for the ability to build personal relationships, social networks and cooperate in projects in diverse environments.

3.2 CRITICAL INCIDENT 2: SHOPPING IN ENGLAND

The second incident describes emancipation in the context of language learning experienced by a Czech female student's trip to England. She starts the reporting part of her story by establishing the context of the critical incident and its triggered emotion:



Last year I spent few weeks of July in Manchester with my boyfriend. We visited my boyfriend's father who works and lives there. One afternoon we went to the nearest shopping mall, where I found a nice handbag. The owner of the little shop with handbags was quite nice and he started to explain to me what are the positives of this handbag and so on. He was also trying to persuade me to buy another product. I wanted to explain him something, but I used a wrong expression and I could not find the right words at that moment, so my boyfriend told that instead of me. I was really embarrassed.

As can be seen, after delineating the setting of the context, i.e., a summer afternoon at a shopping mall in Manchester with her boyfriend, and the owner of the shop communicating in English, the student reports the moment when her boyfriend stepped in to help her communicate in English. Her feeling of embarrassment (emotion) revealed at the end of the explanation indicates the critical nature of this incident. The previous formulation "my boyfriend told that instead of me" also indicates that the problem dwelled in her perception of herself (cognition) as an independent partner.

Indeed, the desire for emancipation from her boyfriend in English speaking interactions is further confirmed by a more elaborate interpretation (metacognition) in which she admits drawbacks in her English skills, accentuates her ability to act independent when alone, but reasserts her desire to act with the same independence in her partnership:

These situations, that I can't find the right word, are happening to me quite often. Nevertheless, usually when I am alone, I have to handle it and in the end I will always manage it. This situation was different, because my boyfriend can speak fluently quite well, so he wanted to help me. Although my boyfriend was trying to help me, in this situation he made it even worse. I was quite mad, that I could not finish it on my own.

Upon this clarification of the reasons of her feelings, the student proceeds to describe the following steps (behavior): "I asked my boyfriend not to help me in these situations". Even though it is not clear if she did this directly in the store or any time after, an implementation of long-term adjustment acts (meta-behavior) is indicated in the conclusion of the student's testimony in which she not only reasserts her independence in her partnership but also claims to be applying this principle consistently in wider social contexts:

I would not allow him to speak instead of me next time. Even if I can't find the right words, I am trying to manage it alone and I don't allow anyone to speak instead of me.

As can be seen, the occurrence of unsolicited help from the student's boyfriend in a situation of foreign language communication demonstrated the acceleration of the student's personal growth in a number of areas, such as assertiveness, independence, identity, and language learning. She not only reasserted her equality in her partner-

ship and other social settings, the situation also served as an impulse to realize and intensify her efforts to improve her foreign language skills.

3.3 CRITICAL INCIDENT 3: SHOOTING A PENALTY

The next incident highlights the role of CIs in realizing personal ambitions and leadership skills in the context of a team sport where one needs a capacity or willingness to prioritize cooperation over individual excellence. In the following excerpt, the student explains the general context leading to the critical moment:

The first moment that influenced my life and I found out about myself, which personality in the future I am going to be, was when I was 11 years old. There was a football tournament for players under 14 and our team played the final. The score was 1:1 at 60 minutes. We got a big chance, because we had a penalty. None of my teammates had the courage to take the ball and go shoot.

Since the student's team needed to find one player who would assume responsibility for shooting the penalty, the student knew he would be one of the potential shooters. At that moment he was facing a situation of fighting his fear of failure, both individual and collective, against a desire to excel as an individual and win for the team (emotion). At the same time, he was also processing his chances (cognition). This can be inferred from the follow-up course of events. Knowing that this kick would decide the result for the whole game, the student made a quick assertive decision, accepted the challenge, and managed to score (behavior): "Even though I was the youngest, I found the courage in me. I changed the penalty".

The risk paid off, thus leading the student to seek further interpretations (metacognition) of this incident for his future life:

This moment meant two things to me. First, I want to be the leader, the one who takes responsibility for himself. And the second, that I like when my attention is on me and I'm under pressure.

What is more, this incident obviously helped him to realize his personal talents and ambitions, as well as the practical skills and competences (meta-behavior) applicable in wider areas of his professional life, such as leadership skills, individual responsibility, stress management skills, and public exposition.

3.4 CRITICAL INCIDENT 4: KARATE COMPETITION IN JAPAN

Sports are the theme of the following CI, too. This situation, taking place in the area of combat sports, contributes to the realization and development of working and cooperation styles in intercultural contexts. In the first part, the student, a young male, provides details of the course of events leading to the critical moment:





My karate team and I went to Japan to participate in world championship ... Even though I was 12 years old I noticed every detail of the [Japanese] culture. I was struck by their purity, diligence and discipline. Before the competition started ... we trained together with the Japanese kids ... They were very friendly and positive ... And then came the day of the competition where I won first two fights and reached the semi-finals and my opponent was a Japanese kid with whom we trained together. It's always been hard for me to fight against friends ... The battle began, I couldn't hit hard but my opponent fought like he thought that I was his main enemy, as a result, I lost the fight.

Losing the game to a friend who unexpectedly changed into a rival during the game caught the student unprepared. At the moment of failure, the student understood his disappointment (emotion) as a result of his inhibitions to “hit hard” (behavior) someone whom he had perceived as a friend (cognition). A full realization of its meaning, however, hit only after the student received feedback from the Japanese coach who helped him to understand the sociocultural contexts of the event:

After the fight, I was approached by the Japanese coach who said the words that changed my thinking. He said, “when sounds the signal that starts the fight, you have to win and when the fight is over you should remain friends and respect each other”.

As a result of this suggestion, the student was able to come to further realizations. He first compared the Japanese fighting style with his previous experience and knowledge based on his social background (metacognition): “Our coach taught us that we are brothers and shouldn't hit each other too hard, but the Japanese coach taught that they are competitors, and they have to do everything to win.”. Then, he identified the corresponding behaviors (meta-behavior) leading to success in his area of sports: “I had to choose between a friend and a rival. To win or keep the friendship. To win or lose.”. Finally, he applies the principles of fair play and competition into professional practice: “Now I know that in business you need to be persistent and be able to strike first.”.

Thanks to this CI, the student enhanced a set of interdisciplinary skills. In the area of combat sports — highly competitive contact sports that require strict personal discipline and compliance to rules, to score, the athlete must on the one hand disable or attack her/his opponent, while strictly applying only specific techniques on the other. This teaches them the principles of fair play. However, this situation also showed that to win, athletes must also be able to dismiss their interpersonal sentiments for the moment of the game, strictly separating them from the time beyond the competition. This skill, as shown in the student narrative, is translatable to business skills. To succeed and play fair in competitive environments, one must learn how to separate private from professional relationships. The international context, then, helped him to broaden his understanding of the sociocultural differences between athletes from varied national backgrounds reinforcing his intercultural competencies.

3.5 CRITICAL INCIDENT 5: AN INTERNSHIP IN ENGLAND

The following incident, experienced while working abroad, deals with responsibility and self-confidence as a result of stepping out of one's comfort zone. It takes place during a working internship of one of the students in Great Britain when he was placed into a situation of taking over his boss' agenda during his temporary leave:

When I worked as an intern in Bentley, there was a moment when my supervisor told me he was taking a three-week vacation. The two of us were kind of an independent team, because while the other team was doing sales, we were dealing with the change management. We asked the salespeople how much it would cost from the supplier, then we went to a meeting where there were representatives from finance, quality, logistics, but also engineers, and there we discussed whether the change and investment were fine. So his position was quite high, and suddenly he said he was going on vacation and that I can make it on my own, that I didn't have to worry. I saw it as a big responsibility and I was very stressed about it.

The critical nature of this moment is indicated in the student's accent on the contrast between the boss' assurance of no need for worries and his own feeling of stress (emotion). He also explains that his momentary apprehension was a result of his realization of the complexity and depth of responsibilities in his boss' high hierarchical placement (cognition).

To better seize the situation, the student seeks understanding of the boss' actions (metacognition) in wider contexts. As the internship took place abroad, his first interpretation aimed at socio-cultural aspects. In the subsequent part, he captures the differences in the degree of self-confidence between the Czech and British workers and their willingness to bear responsibility. He also sees a difference in the attitude to authority and respecting the hierarchical order in management structures. Relatedly, he observes a different status of trainees when pointing out the degree of responsibility given in the host country compared to what he has previously experienced in his home country:

They all are really very free, they believe that everyone can handle everything, and I really like that. We in the Czech Republic are too hierarchical, concerned about who is the manager, who is not, but this is not the case in England. So I was very nervous about it. For example, when you change the light on that car for another light and you have to agree to it. I was only an intern there. It is also a difference when you work as an intern here in the Czech Republic and there, you have completely different competencies.

This helped him to better prepare for the time of his boss' departure and adapt his inherent attitudes and habits in the area of student status and working responsibilities to the new reality (meta-behavior). As evident from the follow-up explanation, the student not only successfully coped with the task, but also found practical out-





comes of this experience, including gaining practice in the job, learning new skills, and gaining self-confidence:

Anyway, the turning point came about a week later, when my boss was on his vacation, when I finally started to know what I was doing and what it was good for. I must say that at that moment I felt I made a bit progress — not only in terms of experience, but also in terms of ego.

The boosted confidence is further accentuated in the conclusion of the student's testimony showing his readiness to accept new challenges with a much higher trust in his abilities: "I realized that if I want something, I can do it, and if someone believes in you, you can do it even faster."

This reflection demonstrates that to gain experience and develop professional skills and competences, one must step out of his/her comfort zone, accept new responsibilities, and exercise a great amount of flexibility if one wants to succeed. It also shows that accepting new challenges has a positive effect on the student's self-confidence. Finally, it demonstrates the importance of international work experience that contributes to enhanced intercultural experience, knowledge, and competencies.

3.6 CRITICAL INCIDENT 6: STUDY ABROAD IN AUSTRIA

The last situation, taking place in an educational setting, reveals the role of CIs in growing assertiveness as well as setting up one's own values. This incident took place during the student's bachelor's degree Erasmus+ study abroad in Austria. The context of the critical moment is explained by the student in the in the following text:

I would like to describe a situation, when I felt ashamed. I studied there in English and the whole half a year was a huge challenge, as I had all classes with students from all around the world except of Economics, where were only Austrian students, whose English level is mostly C2. Before I start to describe the incident, let me tell you something about myself. My parents invested in my German and English language a lot. I have visited languages schools, went to England many times but unfortunately, I have never learnt so much as I would like to as I am more technical than humanities person. Somehow, I am stuck in B2/C1 level. During the semester we had to write thesis and I was the first student who handed it in. One week later during seminar, the mentor firstly praised me for handing it in so early and for nice wrapping and then he continued to criticize my English. The whole lecture theatre, full of almost 100 students have heard, how horrible my English is, that it is nonsense for me to be there and study this subject.

As seen in this part, prior to explaining the situation, the student starts her testimony with revealing her feelings (emotion). After laying down the context, she justifies her feeling with a series of explanations of the primary reasons for her feelings (cognition). She first expresses her frustration caused by troubles to achieve perfection in her English language competences despite her long-term efforts and her parents'



earlier investments in her language education. Then, she admits her low self-esteem based on her weaker language skills in comparison to the other classmates from the economics lesson. This self-perception, finally, is reflected in her interpretation of the critical moment from a wider perspective (metacognition), that is, despite being praised for precision and perfect time management, she sees the teacher's public criticism of her English as belittling and humiliating. This is evident from her further elaboration on the event. While accentuating her diligence and achievements from other language lessons and exams, she feels the teacher's criticism unjustified as well as socially inappropriate. She, at the same time, practices a considerable degree of control and diplomacy by permitting the teacher's good intentions to help her mobilize her study efforts first:

For comparison I have been quite successful in other subjects. In the end of semester, I learned for the final exams over month and learnt 5 economics word every day and I passed the exam on grade 4. In my opinion, he just wanted to give me some motivation threw his speech, what should have made me to think about myself and my English. I always persuade myself, that he really wanted me to try harder and improve my English... But I think he has not realized what he was saying in that moment and what impact would it have on me and my reputation.

The student, nonetheless, dwells on the insulting nature of the teacher's remark when describing her inability to find an appropriate reaction at the moment (behavior):

I was the one, who was disgraced in front of another students. In that moment I have not done anything. I was completely caught out by that. I had no words which I could have said in that moment.

Feeling humiliated, as well as her inability to defend herself, seems to have mobilized the student into setting up future plans for improvement (meta-behavior). She first indicates a change in her attitude to criticism: "I have learnt that it does not matter how hard you try or how successful you are, there is always going to be someone who will criticize you no matter what." Then, she defines what she deems as appropriate teacher behavior in the respective situation: "In my opinion, if someone want to reproach you for your imperfections, he must communicate it in privacy." After that, she plans for an ideal reaction in analogic situations: "Next time I would behave differently. I should have solved it with the director of University or at least tell him that the mentor behaves inappropriately." Finally, she points out the progress toward her personal growth:

First of all, it really motivated me a little bit to learn more. I learnt a lot for the final exam, which I passed. But I also had to think about my personality and I realized that languages are not the field of study that I am good at.

This situation, like the others above, positively affected the student's personal growth. Firstly, she acquired a set of soft skills, such as coping with criticism or the principles of proper communication, manners, and diplomacy. Secondly, this incident allowed



her to become aware of the areas of improvements in her personal skills set, especially language skills or assertiveness. By realizing her personality traits together with her strengths and weaknesses, she can better direct her carrier path and study efforts in the future.

4 DISCUSSION AND FURTHER IMPLICATIONS

The CIC model, as proposed in this study, suggests a didactic approach that can help accelerate the process of learning and personal growth through an analysis of a sequence activated by the mutually interactive human processes in a CI. The model adopted in the educational setting guides students to be able to become aware of their feelings (emotion), understand their primary interpretations (cognition), and recognize their unmediated reactions (behavior) in varied critical situations. Based on this, it helps them further reevaluate their performance from a wider perspective (metacognition) and plan for the implementation of positive change in their everyday performance (meta-behavior) thereafter. As such, the model suggests an extended application in multiple fields and for multiple purposes with obvious ethical issues in mind, that is, while working with personal stories, sharing CIs must be voluntary, topically regulated, and presented or used as a didactic tool strictly upon the participants' consent and anonymously.

To begin, each CI analyzed above enhanced in the students a specific set of competencies that fall into the category of the so-called 21st century skills defined in the strategy documents of nations and international organizations (e.g., Chládek, 2015; MŠMT ČR, 2001; OECD, 2019) as key competences essential for coping with the challenges of a rapidly changing world. The data show that the CIs the students experienced helped them develop their critical thinking, problem solving, communication and cooperation skills; the students also learned how to interact in intercultural settings, exercised flexibility, tolerance, and respect; they adopted manners and diplomacy and also had to step out of their control zone or take over responsibility for their tasks and actions. Needless to say, these so-called soft skills can be utilized not only in the students' current globally interconnected academic or professional careers, but also in the new professions expected by many professionals or organizations to take the lead in the job market in the Industry 4.0 future (e.g., Brynjolfsson, 2014; NÚV, 2018; NVE, 2016; Schwab, 2018).

Secondly, besides skills and competences, each experience discussed in this paper turned out to be a valuable contribution to the development of the students' personality traits and character. The students progressed in terms of self-confidence and self-esteem. They reasserted their social roles, identity and values, or realized their talents and ambitions. Some learned the principles of working discipline and focus, others fair play and respect to rules. And most of the situations, while emotionally challenging in nature, ultimately carried a motivational character for learning, working, or practicing hobbies, and helped the students set a direction for their future.

Furthermore, this study demonstrates that CIs experienced in varied settings led to strengthening social networks that the students build and count on in their per-

sonal as well as professional lives. In some of the cases, students reinforced their friendship bonds, others built international partnerships, or defined their social roles. And they learned the necessary principles to foster these bonds through the aforementioned skills, such as cooperation, communication, tolerance, or respect.

Last but not least, this study highlights the significance of CIs for life-long learning. Each CI, as shown above, contributes to a better awareness of a person's emotions, thoughts, and actions, which helps to regulate human conduct in analogic situations to come. In other words, a CI never leaves a person the same. By triggering a series of covert and overt processing, every single critical situation adds up to the growing pool of accumulated experience, knowledge, and skills, and thus spins the perpetual spiral of learning resulting in increasing abilities to deal with critical situations more efficiently.

For this reason, the CIC model fits well the need in the area of human resources, management, or leadership as a tool for professional training or coaching of employees, managers, or teams. Companies, organizations, and institutions can use the model for guiding their workers' personal and professional growth, targeting their career paths, facilitating dialogue and cooperation at their workplace, and activating internal motivation of human resources to learn and work.

CIs are equally applicable to language education. All CIs analyzed above were HEI student narrations about their experiences from varied social interactions in a foreign language used as a natural linguistic resource for varied activities in their language lessons. Through recalling and reflecting on significant life events at the emotional, cognitive, and behavioral level, both in writing or orally, students enforce their productive foreign language skills and build their situation-based, personalized, and thus more efficient sets of linguistic repertoire. As a result, they develop individualized language competencies, boost their self-confidence, and raise their motivation for autonomous language learning.

Thus, it follows that the CIC model can help to contribute to deeper understanding of the social role of languages. Indeed, each of the incident analyzed above can be seen as a reflection of a separate simple language management process, i.e., individuals' discourse-based interaction (Nekvapil & Sherman, 2015) or "behavior-toward-language" (Fishman, 1971), in detail. The model, therefore, is applicable to the language management theory (LMT) (Jernudd & Neustupný, 1987; Kimura, 2014; Neustupný & Nekvapil, 2003) and practice as one of the possible data collection methods helping to capture individual stages of the simple language management process (Sieglová, 2022), including the related emotions, interpretations, decisions, plans, and their practical implementation. This can help enhance general understanding of linguistic, communicative and socio-cultural behavior of individuals applicable in a wide array of applied fields, such as sociolinguistics, political discourse, or language learning and teaching methodology, to name a few.

For all the reasons above, the CIC model is an ideal tool to be used in educational practice. It can serve both teachers for didactic purposes in varied subjects and specializations, as well as students as a guide to their self-advancement. In the form of structured analyses of written or oral testimonies or those used as case studies from a variety of situations or settings, the model can contribute to build the stu-





dents' emotional, cognitive, as well as behavioral intelligence by teaching them how to react to stimuli, process information, understand context, and regulate or control behaviors in varied professional settings or social interaction. As such, the model is well suited for pedagogy of the current unstable world described as vulnerable, uncertain, complex, ambiguous (VUCA) (Kraaijenbrink, 2018; www.vuca-world.org). It can help people and societies develop flexible skills and resistance to better cope with the complexity in the time of new technologies, environmental changes, pandemics, international conflicts, wars, and whatever the unpredictable future holds.

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